NEW-YORK FARMER
AND
HORTICULTURAL REPOSITORY.

VOL. 4.] NEW-YORK, JANUARY, 1831. [NO. 1.

ART. I.—*Retrospect and Prospect.* By the EDITOR.

In addition to the thoughts and feelings excited by the commencement of a new year, we have those resulting from entering on the duties of furnishing to our readers another volume. Although we have cause of gratitude for the success that has attended our labors, yet the retrospect excites some unpleasant emotions—occasioned by not having the work executed in a manner compatible with its character and our own ambition. The prospect, however, in this particular, affords brighter visions. But for fear that clouds may darken our horizon, and storms render our pathway uneven, we will leave the future to be retrospectively narrated. Of the matter which our volume has contained, with the exception of our own lucubrations, we are not ashamed. Very few periodicals in our own country, contain more solid and useful information.—Our correspondents are either professionally practical men, or rank among the first for general intelligence and science. But leaving our individual concerns, we will take a glance first over our wide spread country, and then a bird's eye view of other portions of the globe.

From Maine to Florida, and from the mouth of the Mississippi to the great northern inland seas, our productive soil has yielded so plentifully for both man and beast, that the crops altogether, throughout the country, may be denominated abundant. The rapid increase of our population, the additional numbers of acres brought into cultivation, and the improvements made in husbandry and manufactures, are giving to our country a magnitude, and producing a flow of wealth, that will, as years roll on, greatly augment its weight in the scale of nations.

Among the new sources of employment and wealth, are the cultivation of the Mulberry, and the rearing of the silk worm. This branch of industry has greatly increased during the past year. Successful experiments appear to have been made in every part of the country. From the attention excited and the impetus given, we may expect a great ratio of increase in succeeding years. The state of the country is highly favorable for the manufacturing of this article. Since the general introduction of cotton goods, the spinning wheel and distaff have been laid aside, and in consequence of no substitutes being provided, the employment of young females has either been less productive at home, or they have been sent to cities to learn the trades of dress, where they too often have failed in obtaining a respectable living, and in preserving the home-formed tone of morals. The production and preparation of silk afford employment very suitable for the female part of our population. In this light alone we see important and happy results to our country. The manufacture of silk to the amount of ten or twenty millions of dollars annually, will be accomplished in a great measure by hands, now comparatively unproductive.

The cultivation of the grape for table fruit, raisins and wine promises an additional source of employment and enjoyment. In addition to numerous vineyards in various parts of the country, almost every person who has a few feet of ground, either has, or intends soon to have, one or more choice varieties of the vine. The grape being one of the most delicious and wholesome fruits which the earth produces, its general cultivation cannot but add to the enjoyments of our already much favored countrymen. The recent and increasing objections raised against the use of foreign medicated wines afford grounds to believe, that the wine grape will be more assiduously cultivated. But we must confess, that, under existing circumstances, the cultivation of the grape appears most desirable as a fruit in its fresh and dried state.

One of the greatest blessings which a benign providence, has bestowed on our country during the past year is the promotion of temperance in the use of distilled liquors. The excessive consumption of intoxicating drinks was, twelve months ago, an evil more threatening, more demoralizing, more to be deplored, and a stain of far deeper dye on our national character, than even the holding in slavery millions of the sons of Africa. If the misery caused by the use of alcoholic drinks for the last ten years, could be summed up and estimated, it would, we are well persuaded, greatly exceed that produced by slavery in the same number of years the most fruitful in distress. Scarcely a family throughout our country, stood unaffected by this calamity—either a son, an object of disgrace, a daughter brought to want and misery by a drunken husband, or even the parent a monster of terror and horror, bringing distress and death around him. To such a degree had the evil increased, that a collection of men of almost any class and on almost any occasion, was a place of temptation. The industrious yeomanry in no section of our country, could assemble for the discharge either of public business, or to assist a neighbor, without having exhibited among them, scenes of drunkenness, quarrelling, and not unfrequently, of violent death. So general was the use of these potions, that a scythe could not be swung, nor an axe or flail lifted without a dram before breakfast, and more or less throughout the day. In addition to the high price of labor, a farmer was at the expense of liquor to every person employed—and in proportion to the importance and urgency of his work, he was compelled to deal out the inebriating draft, which instead of expediting, often delayed his business and frustrated his plans.

As an evidence of the increased attention to rural affairs, are the formation and success of societies having for their objects the cultivation of a taste for the science of the vegetable kingdom, and the improvements of the productions of the garden and orchard. The Massachusetts Horticultural society at Boston, has during the past year, marched nobly on in her praisewor-

thy career. The great variety of fruits exhibited, and the care and attention with which they are examined and described, entitle this society, in this particular, to stand pre-eminent among her lovely sisters. The Boston market has unquestionably been improved in fruit and vegetables, by the efforts of this association. The State of New-York has taken the lead in the number of its horticultural societies. The one in this city is venerable for its years, and for the good it has done. Let it undergo a more scientific organization, and it will at once be acknowledged the parent in knowledge as well as in age. The one at Albany has done, and will continue to do, well. The Domestic Horticultural Society of the western part of this State, exhibits indications of rising on a permanent foundation. Of the Society at Newburgh we have no information of its proceedings. Next year we hope for better things. The Rensselaer County Horticultural Society recently formed at Troy, will not, we are well persuaded, be contented to remain last and least. The Society at Philadelphia, like the Philadelphians themselves, preserves its par value. The Charleston, S. C. Horticultural Society, recently organized, will, without doubt, put on a spirited aspect. There are other similar associations in contemplation. Among the benefits flowing from these societies are the cultivation of a taste for rural charms, the introduction of new and valuable fruits and esculents, and the beautifying the grounds about dwellings and along streets and roads. It is a matter of surprise that these associations are not more appreciated. We should have supposed the tasty inhabitants of New Haven for instance, would have increased the attractions of their city in this way.

Of agricultural associations there are but few.—Those in Massachusetts appear to move on with unabated ardor, and with decided usefulness. In almost every branch of husbandry this State has made greater and more general advances than any other in the Union—all attributable to the spirit excited by these societies. The great State of New-York concentrates all its honor in this respect, in one society, that of Jefferson County. The successful progress of this society will, at no distant day, convince the inhabitants of the State of their folly in abandoning a system calculated to promote their individual interest and the wealth of the State. There are other societies in the Southern, and particularly in the Western States.—The one at Baton Rouge in Louisiana, and of Hamilton County, Ohio, are favorably known to the agricultural public. We see indications, particularly in this State, of a disposition to revive these associations. The times and the taste of the people are more favorable than they were ten or fifteen years ago.

Among other indications of national prosperity, is the increase of facilities in travelling and transportation of goods and produce. Besides numerous and extensive canals in every section of the country, railroads are awakening a spirit of enterprise, and opening new and nearer markets to the products of the farmer's labor. These means of conveyance are producing effects, which will increase and perpetuate our blessings—tending to remove sectional jealousies, peculiar habits, and bring forward a race of men quick in thought and movement, and of liberal and enlarged views.

The increased attention paid to education, particularly in that class of schools designed to benefit the great body of the people, the concert of effort and the interchange of views, brought about by conventions of teachers, are calculated to produce much and lasting good—to render the munificent bestowments of our legislatures the most effectual in accomplishing the desired ends, and add very materially to the firmness and consolidation of the foundation on which our imperishable national fabric is to be reared. The establishment of farms and workshops in connexion with schools and colleges is another pleasing expression in the features of our country. In proportion as these institutions flourish, it will only require industry and a fair moral character for youth, however poor, to avail themselves of the privileges afforded by our best seminaries of learning.

In passing over our southern boundaries, and in surveying the extent of country to Cape Horn, the eye meets with but little on which it rests with complacency. The affairs of South America are not in a state to give hope that the day of peace and prosperity is near at hand. This unhappy portion of the world affords a striking contrast with our country, and from the history of both many important lessons can be derived.

In crossing the wide ocean and taking Europe into view, the mind is struck with suspense and filled with expectation. Liberty is now asserting her claims in the voice of reason, having millions of bayonets ready to repress any attempts to quell or drown her cry. In proportion as the Europeans advance in acquiring rational and free institutions, will the physical resources and the energies of the people be increased and developed. Their commercial policy will be more natural and liberal, and hence their intercourse with us more uniform and fixed. The general peace in Europe has been favorable to the agricultural and manufacturing interests, and for the promotion of internal improvements. With the exception of Spain, and Portugal, and Italy, all Europe may be said to have advanced in the rural arts. These countries, together with Turkey, Greece and the Islands of the Mediterranean and Archipellago, naturally form the fairest portion of this quarter of the globe, and when the banners of liberty shall float on their ramparts, then shall plentiful harvests wave in the breezes, and the enterprise of the people exalt their respective countries high in the rank of nations.

In three particulars Africa affords grounds to hope that she too, is destined to command respect by the progress of civilization as well as by extent of territory. The recent capture of Algiers will free the Mediterranean from piratical obstructions to commerce. The consequence will be, that the inhabitants along the coast, including those of Egypt and Morocco, will naturally and necessarily turn their attention to the arts of peace. On the supposition that the trade of Southern Asia and the East Indies takes the channel of the Red Sea, the countries bordering on the Mediterranean will become the seat of European and Asiatic wealth and refinement. Let liberty and true religion spread their benign influence in this portion of the world, and the march of improvement will be rapid and its effects unprecedentedly salutary. Another bright feature in the aspect of Africa, is the prosperous state of the English colony of Good Hope.—From this extreme point, the blessings of civilization and of the Christian Religion are making advances towards the interior. The last, but not least, encour-

aging circumstance in relation to Africa, is the unexampled prosperity of Liberia, the American colony of emancipated blacks. Taking into view the natural fertility of the soil of the Western coast, the resources of trade with the interior tribes and kingdoms, and the increasing spirit in our own country for freeing and colonizing our colored population, there is every human probability, that an enterprising and powerful nation will soon people these shores—a nation whose flag will be seen floating in every sea port of our Union.

Asia with her inert and immense population is destined to experience a day of renovation. The extensive and densly populated possessions of the English in the South, the progressive state of the Russian dominions in the North, the shock already given to the Mahometan faith in the West, and the radiant light of the press extending even to the East, will cause her to rise like a giant from a long and full slumber.

[For the New-York Farmer.]

ART. II.—*Hints on Pruning.* By J. BUEL.

The principal objects of pruning, are to procure a good bole or trunk for timber; to form a proper head for the production of fruit; and to subserve the purposes of ornament.

To effect these objects, with the least trouble and greatest advantage, upon all non-resinous trees, the following rules are recommended.

1st. Begin to prune the tree when it is young.

2nd. Cut close and smooth to the bole or limb.

3d. Cut, when small, the branches which are likely to interfere, or become useless, and which, if suffered to remain, will require to be removed at a more advanced period of growth.

4th. Do not trim to excess. Let the branches occupy, *at least*, a third of the entire height of a tree.

5th. Do not prune when the tree bleeds.

Where the preceding suggestions are observed, we may add—

6th. Prune in summer.

I proceed to offer my reasons for the rules here recommended, and

First. The food required to nourish the lateral useless branches, will go to increase the diameter and height of the plant, or swell the fruit, if these are judiciously removed. But a main consideration is, that the excision of small branches causes only small wounds, and small wounds speedily heal. The observance of this rule, therefore, facilitates growth, promotes health, and ultimately saves labor.

Secondly. This rule needs very little argument to enforce its propriety, as every observer must have frequently seen and lamented the ruinous effects of an opposite practice. The snags either send out useless spray; or, deprived of the feeble aid of these, they die and rot, and carry disease into the bole, and are thus often the cause of the premature loss of the entire tree. If cut close, the enlargement of the living wood soon covers the wound. In large branches, where the saw must be used, the healing process is greatly facilitated, by pearing the cut, particularly the exterior edges, with the pruning-knife; and it is a good precaution, before you use the saw, to notch under the intended cut, to prevent tearing the bark when the limb falls. In extirpating sprouts from the roots, and neither they nor those growing from the bole should be suffered long to remain, the like precaution of cutting close should be observed; for which purpose it is necessary first to remove the earth from about the collar, with the spade or other instrument.

Thirdly. The reasons for pruning a tree while young, apply here: It is easier to cut small than large limbs, and the wounds of the former soonest heal. But the question presents, what limbs are to be cut? Generally all that are likely to cross each other, all feeble spray, the strongest on the bole, and the weakest in the lop; for while the trees are in nursery, I think it serviceable to leave a few scattering laterals upon the bole, and it is beneficial, at all ages, to thin most kinds in the lop. Yet the answer to the inquiry will depend principally upon the species of tree, and the design of the planter. If his object be timber, the leading shoot should be feathered up in a spiral form, and all other shoots likely to interfere with its growth be cut away. If the object be fruit, beauty and utility are to be consulted, and these are seldom incompatible in the eyes of a fruit grower, for with him productiveness constitutes beauty. If ornament be the main consideration, no special directions can be given, as the species employed, the location, and the taste and fancy of the planter, will have a controling influence. The rule for timber trees will not apply to either those destined for fruit or ornament.

In orchard and garden fruit, generally, the endeavor should be to obtain a low and spreading top. When a clean bole is obtained to a sufficient height, say in the orchard, of seven or eight feet, and in the garden, according to fancy, the leading shoot should be cut in, and three or more arms or branches left to form the head; which, when the habit of the tree will permit it, should be pruned so as to give it a besom form, or that of a broom divested of its centre. Several advantages arise from this and a more expanded form. It admits the air and sun more freely, to mature the fruit and wood; it renders the tree less liable to be blown down; it facilitates the gathering of the fruit, and the pruning of the tree. But the principal advantage consists in its tendency to increase oviparous or fruit buds, and consequently to augment the fruit. A great growth of wood seems to be incompatible with a great crop of fruit, and vice versa. A cow which gives much milk seldom takes on much flesh during the milking season. If the secreted food is converted into milk and fruit, there can be but little reasonable hope of its adding to the flesh of the animal, or the wood of the vegetable. Erect branches produce most wood buds, horizontal branches the most fruit buds. Straight limbs produce less fruit than those that are curved or crooked. Whatever retards or diminishes the flow of elaborated sap, in a healthy tree, is favorable to the production of fruit. Hence wall trees, whose limbs are trained in the form of a fan, or in a horizontal direction, fruit better than those that grow upright as standards. Hence young trees are more apt to show blossoms the first and second year after transplanting, than in the two subsequent years. Pomologists have endeavored to render this law of vegetation subservient to their interests, by adopting artificial means for inducing the production of fruit buds. These means consist in ring-barking, transplanting, cutting the roots, training, pruning, &c. The pears in the Caledonian Horticultural garden are trained *en quenouille*, that is, the lateral branches are cut in to a short distance of the main stem, and kept so, and the fruit is produced on the spurs grow-

ing from these shortened branches. In the Horticultural garden of London, the limbs of the pear are tied down in a drooping position, resembling somewhat in appearance the weeping willow. The vines cultivated at Thomery, celebrated for their superior fruit, are planted eighteen inches apart, trained in the form of a T, the top horizontally, and restricted in their growth to four feet from the main stem. In this way a treillace of eight feet long, and eight feet high, is sufficient for five vines, which produce upon an average 320 bunches of fruit. These modes of training have a common object, that of restricting the growth of wood, and producing an increase of fruit. Those who wish to examine the modes of training, here spoken of, in detail, are refered to Louden's Gardener's Magazine.

Fourthly. Leaves are as necessary in the economy of vegetation as roots. The sap must be elaborated in these before it can be transmuted into wood, bark, or fruit. A tree cannot thrive, therefore, when these organs are either deficient or diseased. If sufficient leaves, or branches to prodnce them, are not left to concoct, or digest, the sap, which is propelled from the roots, the tree, to use a modern term, but a just comparison, becomes *dyspepsic*, the vegetable blood is vitiated, the wood loses its texture, and a stinted growth, or premature death, generally ensues. Hence great precaution should be used against excessive pruning.

Fifthly. To prune when the tree bleeds, tends to debilitate, by wasting what is designed as food for the tree. I have known it fatal to the vine. What is termed bleeding, is the flowing of the sap from wounds before it has been converted into aliment. This sap flows most freely while the buds are swelling, and until the leaves are fully capable of discharging their office, as is strongly instanced in the maple, birch, &c. Our orchards are generally pruned in March, which is probably the most unfavorable month in the year for this operation.

Sixthly. The advantages of summer pruning are, that the tree being then in vigorous growth, the wounds heal speedily; and the sap being concocted and thick, does not flow from the wounds, and thereby impair the health of the plant. Summer pruning should not be performed, however, before July, when the new growth has considerably advanced. It may be well to add, as this suggestion may seem unsound, that summer pruning is recommended by the best authorities. "As a general rule," says Pontey, "summer is preferable to winter pruning;" and Sang suspends pruning "from the beginning of February to the middle of July, but carries it on during every other month of the year."*

In regard to evergreens, which with us are confined principally to resinous trees, it is the general practice of nursery-men, and I think it a judicious one, not to prune them till they have acquired some years' growth, and then but sparingly and at long intervals, displacing two or three tiers of the lower branches every two or three years. Monteith says, "never cut off a branch till it has begun to rot, as the bleeding of a live branch will go far to kill the tree."

The implements employed in pruning, and the manner of using them, are matters of moment. If the operation is commenced when the tree is young, and judiciously followed up, a good knife, a small saw, and a chisel fixed on a six foot handle, to trim the tops and extremities of the branches, are all the tools that are required. A large saw will be occasionally wanted; but an axe or hatchet should never be employed, as they fracture the wood, bruise and tear the bark, and disfigure the tree.

J. BUEL.

Albany, Dec. 1830.

ART. III.—*Animal and Vegetable Life in the Polar Regions.*

[One of the numbers of the Family Library, just from the press of the Messrs. Harper of this city, is entitled a "Narrative of Discovery and Adventure in the Polar Seas and Regions: with illustrations of their Climate, Geology, and Natural History; and an Account of the Whale Fishery." The work combines the useful, the pleasing, and that of absorbing interest. Besides a chart of the Polar Seas, there are fourteen engravings, making it a very beautiful and valuable addition to the "Family Library."

The following extracts from the chapter on Animal and Vegetable Life, will give our readers some idea of its merit.]

When we contemplate the aspect of the northern world,—bleak, naked, dreary, beaten by the raging tempest, and subject to an extremity of cold which, with us, is fatal to life and to all by which life is supported,—we naturally imagine that animal nature must exist there on a small scale, and under diminutive forms. It might be expected, that only a few dwarf and stunted species would be scattered along its melancholy shores, and that life, as it attempted to penetrate these realms of desolation, would grow faint and expire. But the mighty Architect of nature, whose ways and power far surpass human comprehension, makes here a full display of his inexhaustable resources. He has filled these naked rocks and wintry seas with a swarming profusion of life, such as he scarcely brings forth under the most genial glow of tropical suns. He has stored them with the mightiest of living beings, compared to whose enormous bulk the elephant and hippopotamus, which rear their immense shapes amid the marshy plains of the tropics, seem almost diminutive. Even the smaller species, as that of the herring, issue forth from the frozen depths of the Arctic zone in shoals which astonish by their immensity. Moving in close and countless columns, they fill all the southern seas, and minister food to nations. The air, too, is darkened by innumerable flocks of sea-fowl, while, even upon the frozen surface of the land, animals of peculiar structure find food suited to their wants.

By what means, or by what resources, does Nature support, amid the frozen world, this immensity of life? Wonderful as are her operations, they are always arranged agreeably to the general laws imposed upon the universe; and we shall find, in the structure and condition of the animal world, the powers by which it is enabled to defy this frightful rigor of the elements. Some of the provisions by which animal frames are adapted to the varying extremes of the climate, have

* The Gardener's Magazine for October, has a communication from John Bowers, recommending summer as having a decided preference. The growth of trees thus pruned, he says, far exceeds that of the winter pruned. He commenced the practice in 1826, when his trees were six feet high; and in the autumn of 1829 they were 20 feet. He has this year summer-pruned 100 acres of young plantations, which in August were stated to be remarkably thriving and healthy.

almost the appearance of direct interposition; yet a more profound investigation always discovers the causes of them to be deeply lodged in their physical organization.

It is on the seas and shores of the Arctic zone that we chiefly observe this boundless profusion of life; and in conformity with that arrangement by which Nature supports the inhabitants of the seas, by making them the food of each other, so here also we observe a continued gradation of animals, rising one above another, the higher preying upon the lower, till food is at last found for those of largest bulk and most devouring appetite.

The basis of subsistence for the numerous tribes of the Arctic world is found in the genus *medusa*, which the sailors graphically describe as sea-blubber. The medusa is a soft, elastic, gelatinous substance, specimens of which may be seen lying on our own shores, exhibiting no signs of life except that of shrinking when touched. Beyond the Arctic circle it increases in an extraordinary degree, and is eagerly devoured by the finny tribes of all shapes and sizes. By far the most numerous, however, of the medusan races are of dimensions too small to be discerned without the aid of the microscope,—the application of which instrument shows them to be the cause of a peculiar color, which tinges a great extent of the Greenland Sea. This color is olive-green, and the water is dark and opaque compared to that which bears the common cerulean hue. These olive waters occupy about a fourth of the Greenland Sea, or above twenty thousand square miles; and hence the number of medusan animalcules which they contain is far beyond calculation. Mr. Scoresby estimates that two square miles contain 33,888,000,000,000,000; and as this number is beyond the range of human words and conceptions, he illustrates it by observing, that 80,000 persons would have been employed since the creation in counting it. This green sea may be considered as the Polar pasture-ground, where whales are always seen in the greatest numbers. These prodigious animals cannot derive any direct subsistence from such small invisible particles; but these form the food of other minute creatures, which then support others, till at length animals are produced of such size as to afford a morsel for their mighty devourers. The genus *cancer*, larger in size than the medusa, appears to rank second in number and importance. It presents itself under the various species of the crab, and, above all, of the shrimp, whose multitudes rival those of the medusa, and which in all quarters feed and are fed upon. So carniverous are the propensities of the northern shrimps, that joints hung out by Captain Parry's crew from the sides of the ship, were in a few nights picked to the very bone; and nothing could be placed within their reach except bodies of which it was desired to obtain the skeleton. Many of the zoophytical and molusceous orders, particularly *actinia sepia*, and several species of marine worms, are also employed in devouring and in affording food to various other animals.

The annals of the north are filled with accounts of the most perilous and fatal conflicts of the Polar bear. The first, and one of the most tragical, was sustained by Barentz and Heemskerke, in 1596, during their voyage for the discovery of the north-east passage. Having anchored at an island near the strait of Waygatz, two of the sailors landed, and were walking on shore, when one of them felt himself closely hugged from behind. Thinking this a frolic of one of his companions, he called out in a corresponding tone, "Who's there? pray stand off." His comrade looked, and screamed out, "A bear! a bear!" then running to the ship, alarmed the crew with loud cries. The sailors ran to the spot armed with pikes and muskets. On their approach, the bear very coolly quitted the mangled corpse, sprang upon another sailor, carried him off, and, plunging his teeth into his body, began drinking his blood at long draughts. Hereupon the whole of that stout crew, struck with terror, turned their backs, and fled precipitately to the ship. On arriving there they began to look at each other, unable to feel much satisfaction with their own prowess. Three then stood forth, undertaking to avenge the fate of their countrymen, and to secure for them the rites of burial. They advanced, and fired at first from so respectful a distance that they all missed. The purser then courageously proceeded in front of his companions, and, taking a close aim, pierced the monster's skull immediately below the eye. The bear, however, merely lifted his head, and advanced upon them, holding still in his mouth the victim whom he was devouring; but seeing him soon stagger, the three rushed on with sabre and bayonet, and soon despatched him. They collected and bestowed decent sepulture on the mangled limbs of their comrades, while the skin of the animal, thirteen feet long, became the prize of the sailor who had fired the successful shot.

The air in those dreary regions is, almost as much as the waters, peopled with its appropriate inhabitants, who fill it continually with sound and life. Here, too, the species are nearly all different from those which wing their flight through the temperate skies. They do not shine with the bright hues of the humming-bird, nor breathe the soft notes of the nightingale, nor do they charm the air with the rich melody of our woodland choirs; but the auk, the petrel, and the gull, clustering in myriads, cause all the rocks and shores of the north to echo with their wild clang. They are almost all rapacious and carniverous; the vast collections of shell-fish and marine insects with which those seas abound, and the carcases of the huge animals which are killed either in conflicts with each other or with man, affording them an inexhaustible supply of nutriment.

The *vegetable world* does not, in this dark and outer boundary of the earth, possess such an important and commanding character as the animal. Nature, without departing wholly from her system and laws, could not clothe with verdure and vegetation a soil which for nine months of the year is frozen as hard as rock, and covered with snow many feet deep. The plants of more genial climates, indeed, when inserted during the short and bright summer, spring up and wear for some time a promising appearance; but they are all nipped by the untimely winter. Still, Nature, in the northern regions, especially in those approaching the Arctic zone, does employ resources similar to those by which she cherishes animal life. The fir, the pine, and other trees of these climates, on being pierced, distil, not the balmy and fragrant gums of Arabia and India, but rich, thick, coarse juices, by which their interior heat has been preserved, and which, in the shape of pitch, tar, and turpentine, serve many valuable purposes of commerce.—

Through the cherishing influences of these juices, the lakes of North America are bordered with tall dark forests, which afford to the agricultural countries an inexhaustible supply of valuable timber. Even their gloomy foliage, while the forests of the south are every autumn strewing the ground with their faded leaves, brave through the winter all the fury of the northern tempest. Before reaching, however, the inclement sky of the Arctic boundary, this magnificent growth decays. Trees that had been the pride of the forest dwindle into meagre and stunted shrubs. Beyond the Polar circle, these monarchs of the wood, if they appear, rise only to the height of a few feet, throwing out lateral branches. On Melville peninsula, dwarf-willow and the *andromeda tetragona* almost alone afforded to the Esquimaux a scanty supply of wood for their arms and utensils. Considerable quantities of drift-timber are, however, frequently found along many of the barren shores of the Arctic regions, supposed to have floated originally from the mouths of the Siberian and other northern rivers.

The plants which abound most in these dreary climates belong to the tribes of mosses and lichens, the *cryptogamia* of Linnæus, the *acotyledones* of Jussieu. The meagre vegetation with which the Arctic surface is covered thus appears rather as if it were an exudation from the rocks than the produce of the soil. Yet the moss and lichen, which form the prevailing features, are not only copiously produced, but possess a nutricious and salutary quality, not displayed in more fortunate regions. One species of lichen (*L. rangiferinus*) forms, as it were, the main staff of life to the Laplander; it supports the reindeer and the reindeer supports him. The lichen of Iceland, boiled in soup, or even converted into bread, is to the natives a substantial part of their subsistence. Farther north, where the depth of the snow, and the continuance of frost, drive the inhabitants to the shore and to animal food, these vegetables still afford support to the deer and to the other quadrupeds which they use as food. It is even with a peculiar species of moss that they trim their lamps. The *fungus* or mushroom, which draws nourishment without the aid of a proper root, and the *filices* or ferns, which consist only of one spreading leaf, the middle rib of which forms all their stalk, while their slender roots spread under the ground,—these find the means of existence even in Greenland.

The order *algæ*, and especially its genus *fucus*, comprehending nearly all the variety of marine botany, grows in vast abundance on the northern shores. These rude plants, which have little or no distinction of stem, root, or leaves, and whose fructification is often included within the substance of the frond, cover the Greenland coast with submarine meadows. The *confervæ*, too, with their numerous filaments, spring up in profusion.

A few plants, not belonging to this imperfect order of vegetation, embellish, during the short summer gleam, the northern fields. Under the bright influence of the sun at this season, indeed, some of the most beautiful among the floral tribe expand their petals. The ranunculus and anemone display their rich and varied tints; several species of saxifrage put forth their flowers; and the yellow poppy has even a gaudy appearance—so that the genus papaver, which enriches the plains of Hindostan, is among the last to expire under the snows of the Pole. The nobler fruits do not ripen under this ungenial sky; yet shrubs producing delicious berries appear on the borders, at least, of the Arctic zone in matchless profusion. The northern Indians consider the fruit of a bush called the *aronia ovalis* as the most delicious food; besides which they have the strawberry, raspberry, red whortleberry, and various others. Several of these are covered beneath the first snows of winter, which are supposed to mellow them, and which, when dissolved by spring, show the berries still hanging on the branches, while the buds of all the others are bursting,—the whole producing a delicious impression unknown to those who have not witnessed the desolation which immediately preceded.

These bleak climates enjoy a precious boon in the plants which act as an antidote to scurvy, and which defy the most severe cold of the Arctic zone. The *cochlearia*, a thick tufted juicy plant, of extreme fecundity, is emphatically called *scurvy grass;* and the different species of sorrel, especially the *Rumex digynus*, were found by Captain Parry flourishing under the snow at the very farthest limit of vegetation.

The extraordinary phenomenon of *red snow* observed by Captain Ross and our other Arctic voyagers, naturally excited the greatest interest both at home and abroad. This singular aspect of a substance, with which we never fail to associate an idea of the purest and most radiant whiteness, has been ascertained to result from an assemblage of very minute vegetable bodies, belonging to the class of cryptogamic plants and the natural order called *algæ*. They form the species named *Protococcus nivalis* by Agardh, which is synonimous with the *uredo nivalis* of Mr. Bauer. This plant seems by no means peculiar to the Arctic snows, but occurs on limestone rocks in the island of Lismore in Scotland, as well as among the Alpine and other countries of Europe. Saussure observed it so long ago as in the years 1760 on Mount Breven in Switzerland, and so frequently after that period that he expresses his surprise at its having escaped the notice of Scheuchzer and other learned travellers. Ramond, whose observations so beautifully combine the precision of science with the perception of the picturesque, found red snow on the mountains of the Pyrenees, as did Sommerfeldt, the botanist, on those of Norway. In the year 1818, vast masses of the same substance overspread both the Appennines and the Italian Alps, and it is recorded, then ten years prior to that period the vicinity of Belluno and Feltri were covered to the depth of twenty centimètres with rose-colored snow.

A singular coincidence has been observed by botanists to exist between a white ground and a red flower. Thus the rich and brilliant variety of *Anthyllis vulneraria* is only found on a chalky surface; and many of the higher orders of flowering plants show a decided tendency to produce red-colored petals when they happen to spring up on white limestone. "How much more forcibly, then," says Agardh, "must this law operate upon plants like the algæ, in which color is an essential part." That excess of light produces the peculiar, or at least prevailing, color of the snow-plant, may be said to be demonstrated by this singular fact, that the red color gradually changes to green as it occurs more or less secluded from the action of light among the fissures of rocks, or beneath the hollows or under-surfaces of stones. This being the case, it will appear the less incomprehensible that the same plant

which is produced amid the snows of the Arctic regions, or the highly elevated Alps of more southern countries, should be occasionally detected, even during the heats of summer, covering the brilliant white limestone of the plains. In the last-named locality it was discovered by the Baron Wrangler in the province of Nerike, and named by him *lepraria kermesina;* and the two supposed species have been since ascertained to be one and the same.

In concluding our notice of this singular subject, we may observe, that when the warmth of the returning sun has partially dissolved the surface of the snow, and thus contributed to the formation and developement of these microscopical plants, the vivifying power of the solar light, aided by some peculiar and as yet unknown property belonging to the natural whiteness of the snow itself, is highly influential in the production of the beautiful color by which they are distinguished.

ART. IV.—*Miscellaneous Articles.*

Preserving the Wood of Wheel-work, &c. from decay.—A member of the Royal Academy of Sciences of Stockholm, in Sweden, in a Memoir, read to that Academy, states that wood, for the use of building may be rendered incombustible by letting it remain some time in water in which alum, copperas, or any other salt has been dissolved which contains no inflamable matter. He likewise states as his opinion that wood, rubbed over with very warm alum or copperas water will, by this process, be secured from decay, dry rot, or injury from moisture, moss, mushrooms, &c. Also that boiling for some hours the spokes of wheels in vitriol water, will secure them from rotting in the places where they enter the stocks or hubs. After they have been thus boiled they are to be dried as perfectly as possible, and then may be painted any color.

Agricultural College in Egypt.—The Vice-Roy of Egypt has founded a College for teaching the science of agriculture, and the principles of administration. It contains 120 students. Mohemmend Effendi is the Director. The pupils are classed according to their capacity; and, according to their age, they receive a greater or less allowance for their maintainance. They are taught the Arabic Grammar, History, the Persian language, and the Mathematics. They are given the Ordinances of the Divan to copy, and they make analyses of the Discussions in Council. Already thirty-nine young men brought up at the College, have received provincial appointments under the Government.

Adulterated Bread.—At the late sitting of the Academy of Medicine in Paris, a memoir was read on the adulteration of baker's bread in the French capital; from which it appears, that the sulphate of copper and zinc are employed by many of the bakers to such an extent as to render the bread highly unwholesome.

Cider.—The New-England Farmer relates the following method of improving cider:

"I think that last year I discovered a mode of improving cider, which renders it more wholesome, and enables me to obtain from apples which are without acid, a liquor as free from acid as any kind of wine.

"During the fermentation of cider sherry, though it be called vinous, a good deal of acetous acid is, I believe, always generated, making those liquors more or less harsh, that is really acetous. I mix in each hogshead of 110 gallons, from seven to eight pounds of newly burnt charcoal, fine powdered. This mitigates the fermentation, redering the liquor black as ink so long as it ferments, but as soon as fermentation ceases, the charcoal is deposited, carrying with it all its impurities, and leaving the cider excessively bright. No taste or smell is given to the liquor by the charcoal, that being wholly insoluble."

Profitableness of Bees.—Mr. Fessenden—Noticing the account in the last New-England Farmer of the produce of Mr. D'Wolfe's Bees in Bristol, (R. I.) I am induced to offer you the following statement of the produce of three hives, on the farm of Mr. Parker at Charlestown Neck. The Bees were under my care a part of the summer.

The three hives of Bees in question produced six swarms, from two of which, *placed in Beard's Patent Hives*, were produced 40 lbs. of pure honey, besides leaving enough in those hives for wintering the Bees —the 40 lbs of honey were sold at wholesale at 25 cts. per lb. producing $10—and leaving the whole stock of nine swarms on hand; (seven of which are unfortunately in the common old fashioned hives which can give no return of honey this year, excepting the usual supply for breeders another season.) The above nine swarms will now sell readily at an average of $8 each, producing $72 which, with $10 for the honey, is equal to $82—the produce of the three original hives of Bees, in one season. EBENEZER BEARD.

Charlestown, Sept. 7, 1830.

Burning of the Western Prairies.—We have no means of determining at what period the fires first began to sweep over these plains, because we know not when they began to be inhabited. It is quite possible that they might have been occasionally fired by lightning, previous to the introduction of that element by human agency. At all events it is very evident that as fire began to be used in this country by its inhabitants, the annual burning of the prairie must have commenced. One of the peculiarities of this climate is the dryness of its summers and autumns. A drought often commences in August, which, with the exception of a few days towards the close of that month, continues throughout the fall season. The immense mass of vegetation with which this fertile soil loads itself during the summer, is suddenly withered, and the whole surface of the earth is covered with combustible materials. This is especially true of the prairies, where the grass grows to the height of from six to ten feet, and being entirely exposed to the sun and wind, dries with great rapidity. A single spark of fire falling any where upon the plains, at such a time, would instantly kindle a blaze, which would spread on every side, and continue its destructive course as long as it should find fuel. Travellers have described these fires as sweeping with a rapidity which renders it hazardous to fly before them. Such is not the case, or is true only of a few rare instances. The thick sward of the prairie presents a considerable mass of fuel and offers a barrier to the progress of the flame, which is not easily surmounted. The fire advances slowly, and with power. The heat is intense. The flames often extend across a wide prairie, and advance in a long

line. No sight can be more sublime than to behold it in the night, a stream of several miles in breadth advancing across these wide plains, leaving behind it a black cloud of smoke and throwing before it a livid glare which lights up the whole landscape with the brilliancy of noonday. A roaring and a crackling sound is heard like the rushing of a hurricane. The flames which, in general, rises to the height of about twenty feet, is seen sinking, and darting upwards in spires, precisely as the waves dash against each other, and as the spray flies up in the air; and the appearance is often that of a boiling and flaming sea violently agitated. The progress of the fire is slow, and the heat so great that every combustible object in its course is consumed. Wo to the farmer whose ripe cornfields extend into the prairie, and who suffers the tall grass to grow in contact with his fences! The whole labor of the year is swept away in a few hours. But such accidents are comparatively unfrequent, as the preventive is simple, and easily applied.—*Illi. Mag.*

Poisonous Cheese.—A piece of poisonous Cheese, has violently disordered the stomachs and intestines of a number of persons who have eaten it, in this city. Similar accidents are not unfrequently registered in the gazettes. The cause of those unpleasant occurrences seems not to be perfectly understood. The observations and experiments made by Dr. Mitchill, were conclusive that no poison had been introduced. He was inclined, as far as he had been enabled to form an opinion, to ascribe its unpleasant and sometimes alarming operation, to three circumstances: 1. The racindity, or excess of rennet. 2. Peculiarities called *idiosyncrasies* in the aliamentary canal of certain persons: and 2. To overeating and disturbing the stomach by excess.

The cheese has the usual appearance, and certain persons, and Dr. Mitchill, himself, have eaten it without the least incovenience.—*N. Y. Eve. Post.*

The Price of Vegetables at Cincinnati.—The commercial business of this city is regularly increasing, in consequence of the increase of inhabitants in the country to which it is the most convenient mart. The country in our immediate vicinity, however, appears to increase very slowly, as we find, that although the city has had an increase of about 16000 since the last census, yet the rest of the county has gained but about 5000. The rate of increase in the city has therefore been upwards of 160 per cent. It will naturally be inferred from this, that our gardeners and those farmers in the immediate vicinity of the city, who attend the markets, are enabled to obtain good prices for their products. The fact is, we believe, that the prices of vegetables, butter, &c. are nearly or quite, as high as in the markets of the large eastern cities, where the expense to the producers, of manuring their lands, is alone equal, or nearly so, to the whole expense of cultivation here. The consequence must necessarily be, that those farmers and gardeners in our country, who are good managers, must be as favorably situated for improving their fortunes as those who are opening new lands.—*Western Tiller.*

Smut in the Wheat.—A discovery has been made by Mr. Adonijah Alden, a respectable farmer of this county, which we think may be important to farmers, and therefore give it publicity. Mr. Alden gives it as his opinion from experiments he has made, that smut is produced from small shrivelled kernels of wheat.—He made the discovery by washing one part and screening the other part of the wheat he sowed in the same field, and by sowing each part by itself. On that part of the field with washed wheat, there was smut, and on that part sown with screened wheat there was none. At the suggestion the same experiment has been successfully tried by others.—*Bradford, (Pa.) Settler.*

Sick Peach Trees.—It was mentioned some time since, by a correspondent in the papers of this city, that certain facts had lately come to his knowledge, which we stated, including the belief, that powdered charcoal strewed about the roots of peach trees, would be a great preservative against disease, produced by insects, worms, &c. The Boston Courier, in a recent notice of this subject, corroborates the above opinion, by his own experience; and adds, that trees planted in burnt lands are universally healthy and free from worms at the root.

Large Heifer.—Moses Smith, of Flatbush Hill, is now fatting a three years old Heifer, which is supposed to be the largest ever fatted in this county. She was weighed by Mr. Cunningham, on the ninth inst. and found to weigh 1829 pounds.—*L. I. Star.*

Carriage Springs.—We have heretofore stated that Messrs. Ives & Walters, of this village, had made an improvement in Carriage Springs, which had been examined by great numbers of persons and was believed to be a very valuable invention. The following is a more particular description of the springs:

"The peculiar advantage which the application of these springs possesses over the common kind, is, that the spring sustains only one third, one fourth, or even as little as one sixth part of the weight of the body, and weight contained in it; and for that reason the springs may be made very light, and still be in no danger whatever of failing. And in the second place, as both sides of the body must settle alike in all cases, whether the weight is placed equally on both sides or all on one side, there cannot be great danger of upsetting on uneven ground or in turning a corner quickly; for the body cannot swing over when hung in this way as it can in the common way. Thirdly, if the spring sustains only one third of the weight of the body of the carriage, the body can have only one third as much motion as the end of the springs have; so that when the wheels sink into a gutter for instance, the body moves downward with only one third the velocity, and is consequently thrown up by the rebound of the springs with only one third the force, which in a very great degree prevents the jolting, or disagreeable jerking motion which the ordinary springs have. There is also a very material advantage in the extreme simplicity with which the spring is constructed, so much so, that any common workman can make them; and springs made of wood will answer nearly as well as those made of steel; but the steel ones will cost so little that they will no doubt have the preference, and a carriage hung or suspended in this way that will carry twelve or fourteen persons, will ride perfectly easy with one or two persons in it, because the advantage which the springs have over the weight, increases as the weight is increased."—*L. I. Star.*

How to preserve pictures from flies.—Let a large bunch of leeks be soaked six days in a pail of soft water, and wash your pictures with it.

[For the New-York Farmer.]

ART. V.—*The Yellows in Peach Trees.*

By NOYES DARLING.

MR. FLEET, The disease, denominated the "yellows," is rapidly destroying the Peach Trees in this part of the country, (New Haven and its vicinity) and unless we discover some effectual preventive or remedy, we have reason to apprehend the entire extermination of that valuable tree. No such preventive or remedy has as yet come to my knowledge. It is with a view to elicit, from some of your experienced correspondents, information on this subject, that I send you the result of my own observations.

The disease of which I speak is characterized by two peculiar symptoms; the premature ripening of the fruit, and the growth of very slender shoots from the body or large limbs of the tree. The first symptom is always manifest, if the tree has fruit upon it; but, in the first season of the disease, it is rare that all the fruit is effected; generally, that one or two large limbs only, ripen three or four weeks too soon. The second season the whole tree is affected. The fruit may attain its full size, or may be no larger than a cherry. All peaches, whatever may be their color in a state of health, (red, yellow or white,) are more or less *purple* when diseased. I have known one exception, and one only, to this remark. The color is not confined to the skin of the peach; it reaches even to the stone, producing either purple specks or lines throughout the pulp. The taste of the peach is insipid or slightly astringent.

The second symptom generally, but not always, manifests itself the first season of the disease. The stem of the slender shoots varies in size from that of the smallest to that of the largest knitting needle. It is thickly covered with small leaves about half an inch long and one eighth of an inch wide, of a color reddish, yellow or white. These shoots sometimes come out in clusters and sometimes singly, most commonly on the body and large limbs, but occasionally near the extremities of the branches; if on the body, they are found near the root. The tree attacked with the disease invariably dies, usually in three, always before the end of four years.

Such is, I believe, a pretty accurate description of the "yellows."

This disease has been ascribed to various causes.

1. The late Mr. Parmentier (New-York Farmer I. 10) believed "that the cause depends in a great measure on a *defect in setting out the trees*"—not digging the holes sufficiently deep. Against this theory may be urged the fact, that the disease attacks trees that have never been transplanted, as well as those that have, and those in a deep, loose, sandy soil, as well as those in a thin covering over "hard and impenetrable earth." Besides, if this cause were the real one, it would have operated years ago, and in all places where this defective setting out was practised; but we find that the disease made its appearance no where till within about thirty years, in this vicinity not till about ten years ago, in my own orchard and in the gardens of my near neighbors not till within three years, although this defective setting out has been practised for centuries, wherever peach trees have existed. Why should this defective setting out produce the disease in 1830, in the same soil, subsoil and exposure, where trees thus planted have flourished in health for ages? I think this question cannot be answered consistently with Mr. Parmentier's theory.

2. Mr. Wilson (N. Y. Farmer I. 12) is of opinion that the "late failure in our peach orchards, has been more owing to causes arising from the natural termination of the duration of the sorts so long propagated, than from any extraordinary malignancy of disease." The fact that he cites in support of his theory, viz. his planting out an orchard twenty years since in Greenfield, Con. with seedling trees of new and fine sorts, which have escaped the disease, appears to me not conclusive, since there are numerous orchards or at least gardens, in various parts of this country, stocked with superannuated sorts, which have never been effected by the "yellows." If his theory were correct, the disease would be confined exclusively to those sorts of trees which have passed their natural term of duration, while the new and renovated sorts would escape its ravages. Such, however, is well known not to be the fact. All sorts, new and old, either in stock or graft, are indiscriminately affected, wherever the disease prevails. Take my own orchard for an example. The disease showed itself in 1828 in two trees —inoculations from a superior seedling Lemon Cling, that originated in my own garden 11 years ago. In 1829 six trees became diseased. Having made no memorandum of the sorts, I cannot state them with certainty; except that one of them was a remarkably fine, thrifty, seedling Lemon Cling, that originated where it stood in 1816. The last season (1830) the disease appeared in fifteen trees; of these, four were Lemon Clings, inoculated from the seedling first mentioned; 2 were yellow Rareripes, inoculated from a seedling that originated in 1816, and 1 was this seedling itself, standing where it came up; 2 were inoculations of a white cling, name and origin unknown; 1 was an inoculation from a white cling, that originated four miles from me, about ten or twelve years ago, as I should judge from the size of the tree; 1 was inoculated from an early seedling freestone; 1 was a seedling, late white freestone; 2 were inoculations from a seedling freestone, that originated about 1817; and 1 was inoculated from a yellow seedling freestone, that originated, as I suppose, about 20 years ago. The trees were all young (2 excepted) and very thrifty, producing at the extremities of the limbs strong healty shoots from one to four feet in length. They must all be considered less superannuated than the Greenfield orchard, planted twenty years ago. If any thing can be inferred from these facts, in relation to Mr. Wilson's theory, it is, that the new and renovated sorts are more liable to the disease than the old and superannuated; for I have such old sorts growing in the orchard, particularly the early Ann, Lemon Cling, Yellow Rareripe, and Red Rareripe, from Prince's nursery, which are unaffected.

There is one fact that seems conclusive against Mr. Wilson's theory—it is, that the "yellows" has never appeared in Europe, where, if any where, various sorts of peaches have been propagated beyond the natural term of their duration.

I will add further, that the "yellows" is attended with a set of phenomena altogether peculiar, and totally different from those that result from the superannuation of the race. In the latter case the decay is gradual; the tree (the *whole* tree) is sickly, feeble and unthrifty; the fruit, if it bear any, is scanty and stinted, ripens in due time, and takes its natural color. In

case of the "yellows," the attack of disease is sudden, upon the most healthy, vigorous and thrifty trees, affecting, at its commencement, but a single limb; the fruit is in great abundance, and often of full growth, ripens three or four weeks too soon, and assumes an unnatural hue. Consumption and yellow fever in the human body, are not so dissimular as superannuation and "yellows" in Peach trees.

3. Improper or defective cultivation is assigned as the cause of the "yellows." There is an obvious objection to this theory. Upon the well known principle of philosophy, that the same cause produces the same effects, wherever there is an improper or defective cultivation of the peach tree, the "yellows" ought uniformly to appear. This, every one knows, is not accordant with fact. The disease makes its attacks without any regard to the care or skill of the cultivator; it makes no discrimination between the best and the worst treatment. Some, to be sure, who have cultivated their orchards with superior skill, and have been favored with exemption from disease, will ascribe their escape to good husbandry; but to what shall those ascribe their exemption, who, with the worst and rudest and most negligent culture, in the most unkindly soil, have yet (I do not say finest fruit and thrifty trees) but trees free from the "yellows?"

4. Some believe the "yellows" to be the effect of injury done by the Peach Worm (Ægeria exitiosa.) It is not easy to disprove this theory: yet there are reasons for not believing it to be correct. The known visible injury which this worm does to the tree, is the devouring of the inner bark around the trunk, at or just under the surface of the ground. The natural effect is the same as that of girdling the tree, as far as the bark is so eaten. If the whole circumference is eaten round, the tree must die; if partially eaten, the tree will languish and become unthrifty, for want of nourishment, in proportion to the extent of the wound. So much we may say with confidence. But we are not yet certain that no further injury is done. The burrowing of the worm in the bark *may* infuse a poison into the circulation of the tree; there *may* be some other invisible, or undiscovered injury done to the leaves, blossoms or branches, by the fly which issues from the worm. But it is going too far to *presume* the existence of these occult and unascertained injuries. We have a right, till the contrary is proved or rendered probable, to suppose that the worm does no more than we see. If so, we may say, without hesitation, that the "yellows" is not occasioned by the worm.—There are two facts which if the worm does no more than eat the bark, are decisive on this point. 1. The worm has been committing its ravages upon our trees for many years without any appearance of the "yellows." They have even girdled trees so as to produce death, without any of the phenomena peculiar to that disease. 2. Trees that have never, as far as we know, been touched by the worm, have died of the "yellows." Of the two in my orchard which had the disease in 1828, one only had been wounded by the worm. Of the fifteen which took the disease in 1830, thirteen were free (and ever had been so) from any discoverable attack of that animal.

5. Mr. Prince (short Treatise on Horticulture, p. 14) supposes the disease to be propagated by infection, by means of the pollen of a diseased tree, carried by wind or insects to the blossoms of healthy trees. "A decisive proof," he says, "of its being contagious is, that a healthy tree, inoculated from a branch of a diseased one, becomes itself infected with the disease." An experiment which I made last spring has not confirmed this statement. I inoculated a healthy young tree with a bud from a diseased one; the bud perished, and the stock continued healthy. I also applied a blossom, fresh from a diseased tree, to the blossom, (it had but one) of a young tree in my garden, which has not yet shown any marks of disease. I will state another fact. In the spring of 1829 I received two trees of the Yellow Nutmeg from Prince's nursery. I suppose, from their appearance, that the inoculations were entirely the growth of the preceding year. If they were, they could not have blossomed till transferred to my orchard. The growth of the trees had been remarkably vigorous, and nothing in their appearance indicated disease. Coming from a warmer climate, they blossomed a week before any trees in my neighborhood, and the blossoms had all fallen off before those in the vicinity had expanded. Nevertheless, both the trees died of the "*yellows*" before the month of September following. Another fact; last spring I had occasion to head down a young tree, very thrifty, but not of a sort that I approved. I left only one small twig, about six inches long, on which there were no blossom buds. In the course of the summer that twig grew to the length of five feet, and to the size of a broom handle, with deep green leaves, and every mark of the most perfect health. The branches that sprung from the headed trunk were severely affected by the "yellows." These facts can hardly be accounted for on Mr. Prince's theory. But there are facts which afford strong confirmation of it. That the disease should first appear in the neighborhood of Philadelphia and thence gradually spread in all directions, is one. My own observations may furnish some others. I have traced the disease from a single tree, in 1825, surrounded at that time, for a mile, with entire health, till garden after garden, within the extending circle, has been wholly despoiled of those precious fruit trees. In my own orchard, the two trees of 1828 stood within a rod of each other; of the six of 1829, five were within a circle of four rods diameter; of the fifteen of 1830, fourteen were within a circle of four rods diameter. Such a result we should expect, if the disease spread by the dissemination of pollen.

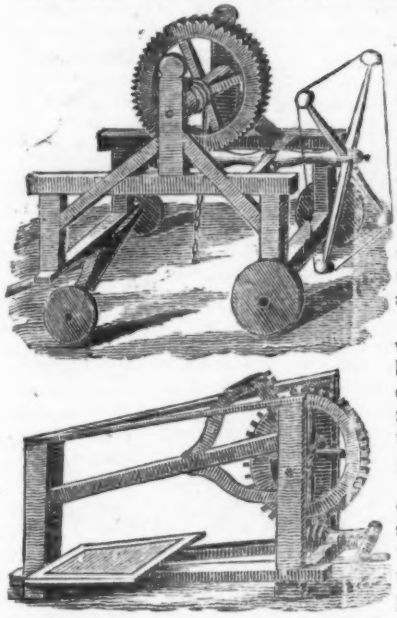
After all, Mr. Prince's theory is not entirely satisfactory. I cannot, upon that theory, well account for a circumstance very often observable—a healthy tree standing two or three years, and blossoming every spring, within a rod of a large diseased tree, and yet continuing uninfected, while every other tree, for rods around, takes the disease and dies.

Some circumstances encourage the suspicion, *that the disease is caused by a poison infused into the circulation, through a branch of the tree, by some unknown insect.* If such an insect had first appeared, about the year 1797, in the neighborhood of Philadelphia, and the sucessive generations had colonized the country in all directions, by progressive stages, it would well account for the gradual spread of the "yellows" from that desired centre, and for most of the phenomena attending its dissemination. The effects of the disease on the suffering tree are such, I think, as we might expect from poison—a debility or prostration of the vital energy, particularly in the leaf. If the proper function of the leaf be to decompose the *carbonic acid* to throw off the *oxygen* and return the

carbon into the *cambium*, we shall account for the slender, pale colored shoots, the yellow leaves, the purple and premature ripening of the fruit, by the superabundance of oxygen and the want of carbon in the cambium or descending sap. What more likely to interrupt or pervert this important function of the leaves, than a poisonous sap transmitted to the *stomas* of their surface? All this, I admit, is mere hypothesis; but if it shall serve to point inquiry in a new direction, there may be discovered the true cause of an effectual preventive of a disease, which former researches, perhaps misdirected, have failed to account for or to cure.

Woodbridge, Con. December 21, 1830.

ART. VI.—*Caswell's Machine for Raising Stumps.*



We have frequently had inquiries respecting a machine for clearing land of stumps.—The drawing of the one which we now give is very simple, and from the information which we have obtained, it is admirably adapted to the purpose.

The first cut is for stumps, and the other for the various purposes of pressing. They are so simple that we deem a description of the parts unnecessary. The stump machine operates either by hand or horse power, by a suitable variation in the parts for applying the power.

Models can be seen, and further information obtained, at 109 Beekman-street, New-York.

[For the New-York Farmer.]

ART. VII.—*Extracts from the Bouquet of Useful and Amusing Trifles.*

"The trees of God, without the care or art of man with sap are fed,
The mountain-cedar looks as fair as those in royal gardens bred."

Green House Plants.—We request it may be taken into consideration by all admirers of plants not scientific botanists, that if there is such a thing as fine foliage, showy flowers, brilliant colors, and elegant shapes, then three fourths of the plants which require to be grown in green houses have no claim to these appellations. On the contrary, we affirm that three fourths are plants of meagre foliage, obscure dingy flowers, and uncouth straggling shapes. Let us leave these plants then to the botanist, who views them very properly with interest, as component parts of his system, as links in the great chain of vegetable being. It is a great drawback to the beauty of collections of plants, both exotic and indigenous, that the yellow color is so predominant in the flower. Reds, scarlets, and whites, are the colors that contrast best with the green hue of foliage. It is a remarkable fact, that there are very few greenhouse plants that have blue flowers.

Seeds.—Plants which have a natural tendency to propagate themselves by suckers, bulbs, runners, &c. are generally sparing in their production of seeds. Annual plants can seldom be readily propagated by other means than by seeds, and hence they are almost always fertile in their productions. In all woody plants which propagate themselves abundantly by extension, it will increase the tendency to produce blossoms, to remove all suckers and all shoots and branches near the ground, by which the whole vigor of the plant is thrown into its upper parts; and the upper parts of almost all plants are those where blossoms are first produced.

To destroy the earth worm.—The common earth worm when it infects plants in pots, may be picked out by turning out the ball; but it may also be destroyed in the pot by watering with any bitter acrid, or acid infusion or solution, as of water of walnut leaves or tobacco, or salt water, lime water, or vinegar. Lime water is the best, both as being the cheapest, and least injurious to the roots of the plants. Salt is equally effectual, but it destroys vegetation: it is excellent for watering garden walks, as it destroys not only vermin but moss and weeds—the two latter often very troublesome in gravel.

The Blight—Is a term in common use, and is applied both to animals and plants when they have received any disease or injury not otherwise to be accounted for. It is supposed to be produced by east winds, extreme heats, thunder and lightning, &c. As far as the disease has been examined, it seems to be a minute fungus growing on the plant, and of course nourished by its destruction. Salt water has been found to destroy it in some cases, but rarely till the injury was already so great that the diseased plant could not recover. In gardens the same process as for the mildew has been tried with success, and this is all that we can recommend. Fortunately it is not very common in green houses.

Consumption in Plants—Is a disease which gradually and sometimes quickly induces the decline and decay of the plant, till at last it dies. The causes which produce it can seldom be correctly ascertained: sometimes it appears to proceed from improper soil, climate or culture; at other times it comes on under the most favorable circumstances, as far as appearance goes. Whatever may be its nature there is no remedy, and all that the gardener can do, if he discovers it before it is too late, is to take off a few cuttings, or adopt the means peculiar to the plant for procuring a successor.

Pressing the Soil.—There is not an operation among all the processes of culture, more essential to growth, than that of pressing the soil to roots, seeds, or cuttings newly inserted in it. Even the common cabbage will not grow if this point be neglected. This the sagacious Cobbett adverts to in a strong manner in his book on American Horticulture; justly observ-

ing that it is not sufficient in dibbling in cabbages to make them firm at the extreme point of the root. The same thing may be said of all descriptions of cuttings, which, whether of heaths, or of vines, or of gooseberries, must be made quite firm at their extremities. We have seen many crops both of the field and of the garden fail for want of pressure on the seeds.

Scaly Bulbs may be increased by the leaves, viz. by pulling a full grown leaf off with the scale attached, and planting it in a pot of sandy loam, when after a short time the leaf throws down the sap which should have gone to the parent bulb, and this forms a callosity of granulous matter, which soon takes the form of a young bulb or bulbs.

Propagation of Green House Plants by their Leaves.—The propagation of plants by their leaves is comparatively a recent discovery. It takes place in nature with a few plants, such as the *Dionœa*, *Seaonion*, &c., and with the hairy ladies' smock (cardamine hirsuta). All the improvements which art has hitherto made in this natural mode of propagation, is to take off the leaves when they are fully grown, and instead of dropping them on the earth at random, to lay them on their backs on moist earth, shaded rather by position or by covering, or what is generally preferable, by a little fresh moss strewed over them. All the culture necessary till the young plants form themselves on the edge of the leaves, to keep the moss and earth below of a regular degree of moisture, and exclude bright sunshine. The following green-house and hot-house plants may be propagated in this way, covering the more delicate with a bell glass: *Bryophyllum calycinum, Gloxinia speciosa, Dionœa muscipula, Verea crenata, Arum*, various species; *Hoya carnosa; Aloe*, most of the species; *Xylophylla*, any species; *Crassula*, many species; *Cotyledon orbiculata.** All the tunicate and squamose bulbs, and probably many others. Other plants throw out roots from the petioles of the leaves, without, as far as has hitherto been observed, having the power to generate buds. Such as *Camellia, Aucuba, Laurus, &c.*; others root from the points of their lateral branches, without, as far as has been observed, having the power to form a main shoot, as the *Araucaria* or Brazillian Pine.

[For the New-York Farmer.]

ART. VIII.—*Queries on the Management of the Vine in the Grape House, by* NOYES DARLING, *with answers by* MICHAEL FLOY, *Nurseryman.*

MR. FLEET—SIR—I am extremely desirous to obtain some further information than I now possess, relative to the cultivation of the vine. First, as to grafting. Mr. Spafford, communicated through the medium of your paper, the method practised by Dufour: but he states nothing as to the *time of the year* when the operation is to be performed, nor the *manner of preparing the graft* for insertion. I have tried to procure Dufour's book, but without success. If Mr. Spafford, or any other of your correspondents, would give information on these two points, a favor will be conferred on the public, or at least on me.

I also wish to learn the proper management of vines under glass.

1. Whether the root of the vine should be placed *within* or *without* the grape house; if the first, whether it should be watered in the summer; if the second, whether it needs any protection from our northern winters.

2. Whether the branches need any other protection than the glass, during winter.

3. What portion of the year the glass is to be kept over the vine; when it is to be taken off, and when put on.

4. Whether any artificial heat should be used in the grape house.

5. Whether the rain should be permitted to fall on the leaves of the vine; if so, when; if not, whether they should ever be watered by hand.

If you can give or procure an answer to these inquiries, you will do me a particular service.

Woodbridge, Con. Your's, respectfully,
Dec. 21, 1830. NOYES DARLING.

Answer by Mr. Floy.

Grafting of grape vines may be effected, but it requires more care and attention than are necessary for grafting common fruit trees. The principal difficulty attending the process, is the liability of the stock to bleed so profusely, that it may die in consequence; and the graft, by reason of this great flow of sap, is prevented from uniting with the stock. The bleeding of the vine, or in other words, the flow of sap, which rises at an early period, and before the buds have expanded, has induced some gardeners to delay the operation until the blossoms begin to show out; it having been found by experience that the flow of sap has in a great measure subsided; and this mode has been partially successful. However, the young shoot cannot make the growth it would have done, if the graft had been inserted at an earlier period. It is generally supposed that the sap rises about the middle of February; and this would be on the whole the best time to graft for the latitude of New York. North or south of this, allowances could be made accordingly. The months of March and April are the common grafting seasons for apples, pears, &c.; but this would not be the best time for the grape vine, for the reason above assigned; therefore if not performed at the latter end of February, or early in March, I should delay it until the first or second week in May. With regard to the operation itself, the splice or whip graft method would probably be the best. The graft tied first with bass matting, and the wound covered with a composition of rosin, beeswax, &c. made fluid by heat, and used when just warm enough to spread, being careful not to have it so hot as to scald the vine. The graft or scions to be inserted, ought to be cut a month before they are wanted for use; in order to keep them back, and not to be as forward as the stock; particularly if to be done at the latter period, the lower ends of them should be wrapt in moss a little damp, or stuck in a potatoe. Two eyes in general are enough, or three at most is quite sufficient for a graft, the splice just below the lower eye. If the stock is large, the clift method may be tried; inserting two grafts, one at each side, and cementing it over immediately before the sap begins to rise. The method of grafting by either of these ways is so well known, that it is unnecessary to describe them more fully; and as the vine

* A similar plant was exhibited before the Albany Horticultural Society, at their last anniversary.

is much more difficult to graft than common fruit trees, the process should be well understood by practice before attempted, as a good operator may often fail in grafting the grape vine, and therefore it should be done with care and attention.

As to the query whether the root of the vine should be planted within or without the grape house—it would be best outside, if the house was small, in order to give more room for the vine to fruit. In that case the vines should be planted in a border near the front wall, and the vine branch taken through the wall into the house, holes having been left for that purpose; being careful however during winter, to tie straw or hay bands round the exposed part of the vine, and to have the border covered with litter to protect the roots. The shoots inside should be fastened to wires across the rafters. If a flue was in the house along the front wall, the vines ought to be planted outside to protect them from the heat of the flue. If a large and roomy house, as a vinery ought to be, the vines had better be planted inside. Supposing the vinery to be 16 or 18 feet wide, and about the same height at the back wall; the front wall about 4 or 5 feet high, with sloping rafters and two lengths of sashes; the upper ones to slide up and down when necessary, to admit air: in this case the flue might run along the centre of the house, and two borders of rich compost earth, well mixed up, with about one quarter of rotten manure, two or three feet in depth, and the border 5 or 6 feet wide, running along the front and back of the house, in which the vines may be planted, the front ones to be trained up under the rafters, and the back ones to be trained up the back wall on a trellis; a flue is always necessary, although it may not be much wanted, yet would be sometimes very important to the crop, especially if severe cold should occur when the vines are in a growing state.

As to water, I take it for granted that no vegetable can exist, much less grow and produce fruit, without moisture; and grape vines in particular require a pretty liberal supply when growing vigorous. And surely if the vines are excluded from rains, they must secure their supply from the water-pot; and the leaves well washed occasionally with the syringe, except when the vines are in flower, and when the fruit approaches to a mature state. They will not then require so much water, and afterwards very little will be necessary.

Second. The glass will sufficiently protect them until the buds begin to swell, and then fires may occasionally be made in very cold weather only; but care must be taken when the buds begin to expand, not to let the temperature of the house fall below 40°, and to give plenty of fresh air whenever it can be admitted. This is important, as well as to water the borders frequently with the rose of the water-pot. The vines can be forwarded or kept back as occasion may require.

Third. The glass ought not to be taken entirely away until the fruit is ripe. If plenty of air can be admitted into the house, there will be no occasion for removing it, and it will be the better to shut them up at nights, and during severe storms. Probably this mode will prevent the mildew. After the fruit is taken off, the glass may be removed until the latter end of November, when the vines may be trimmed, and the glass again put on. While on this subject, I would suggest the propriety of building a house of good size, and in the best manner. The question ought not to be how little may be done on a small scale, which in the end would be of little or no use—but how to do it in the best manner, and after the best plan, on a large scale; the result would give both pleasure and profit. In conclusion, I would recommend a careful perusal of *Speechley's Treatise on the Vine*, where every information on the subject is given that is required, in a masterly manner.

MICHAEL FLOY.

ART. IX.—*Fire Blight.*

MESSRS. EDITORS—I see by the papers, and learn from persons from various quarters, that *blight* or *fire blight*, as it is called, is producing great ravages on apple, quince, and particularly on pear trees, of the grafted and best kinds, which threatens total annihilation to some of the finest varieties hitherto known; and as the same disease is obtaining in this country, many instances of which I observed the past season, I beg leave to add my mite to the stock of *conjecture*, which seems to be the only advancement that the best physiologists of the country have as yet been able to offer as to its cause—in fact it seems to be shrouded in the most impenetrable veil of mystery, and as yet has eluded the closest and most critical analysis of our best horticulturists.

It has been imputed to a redundancy of sap, a surfeit, to the too great heat of the sun, to insects, and to disease received by impregnation of the blossom, analagous to the yellows in the peach, or contagion in the animal system—which is analagous to apoplexy, or perhaps gangrene.

Some writers alledge that seedling trees, and new seedling grafts on seedling stocks, are not affected. Others that confinement in close planted orchards, and want of circulation of air is the cause. Others that those trees which have a long *tap root* that runs deep into the earth and brings up water as sap which is not charged with carbonic acid and the salts of the surface, and kills the tree, as taking too much cold water does into the animal stomach, or introducing it into the artery of a living subject; and another person, well skilled in these matters, says that he has lost all of his trees (20 or 30) in the crotches of which he has not hung old scythes, sickles, chains and other heavy iron articles. Now, who shall decide when doctors disagree? The conjectures are as various as the minds employed in investigating the subject.

The vulgar term, *fire blight*, is in reality not badly chosen—for the appearance is the very same as I have observed in trees that have stood so near a fire as to have their leaves scorched, and the vitality of the small branches destroyed. Such a tree, in the course of three or four days, puts on exactly the same appearance and smell as the blight.

Now comes my hypothesis. Is not the cause, the *primum mobile* of this destructive disease some defect, in the leaves, which are the lungs of the plant, and which elaborate the sap, and without which neither the *venous* nor *arterial* system can proceed—the rising sap accumulates, stagnates, firmentation commences, heat is generated, acetous acid is formed, which would produce exactly the state of things we find in the blighted tree.

The leaves may become unhealthy by excreting some morbid or acrid substance, or by honey dew,

which as yet is not satisfactorily explained, or by some small insects destroying the secreting or excreting vessels of the leaf, or puncturing the petiole, and destroying the tubes that carry and return the sap, at a period when the tree is too far exhausted by bearing and the lateness of the season to push out the new bud.

Genesee Farmer.

ART. X.—*Agricultural School of Hofwyl.*

MY DEAR FRIEND—The agricultural population of every country forms the mass of the nation. It embraces most of its physical strength, and, if well educated, it is usually the most virtuous, the most substantial part of the community. Their moral and intellectual improvement, comprising that of day laborers, is therefore an object of the highest importance, and this was the prominent object of Fellenberg, in the establishment of his institutions. It is not accomplished, in his view, by raising them above their employment, or by inspiring a taste for other occupations, which will render this irksome. It is by inspiring attachment to the ground they cultivate, by leading them to find happiness in this employment of their faculties, and in the result of their labors. Is it asked, How shall this be effected? Fellenberg replies, by improving agriculture; by rendering it honorable; by elevating its importance in the eyes of those who are called to exercise it. This influence must be exerted, not merely on proprietors and overseers in the great schemes and arrangements of an estate, but on the *individual laborers* in the minute details of daily life. They should be taught, as far as possible, to find resources for intellectual occupation and enjoyment, in every process of labor, in every soil they till, in every plant or insect they encounter, in every change they observe in the air, or the earth, or its *productions*. They must especially be led to recognise throughout the hand of the Deity, to acknowledge his blessings, to bow to his chastisements, and to feel their dependence upon him.

The Rural School of Hofwyl is intended to accomplish this object, by training children to a life of labor, and especially to an agricultural life; and cultivating their intellectual and moral faculties, at the same time, that they may understand the processes they perform, and appreciate the importance of the advantages and the duty of industry, instead of engaging in it as an irksome mechanical task.

Their physical education rests upon the same principles as that of those who are destined to literary pursuits; but necessarily requires modifications in reference to their future mode of life. The most simple methods of living, and the habit of performing for themselves, all that the cleanliness and the comfort of their rooms for lodging, eating and instruction require, are obviously necessary. At the same time, the wholesomeness of their food, and the airiness of their apartments, and other things necessary to health, are attended to with care. The increased exposure to wind and weather which their employment requires, not only serves as a better preparation for their future life, but secures them from a multitude of little indispositions, in which the pupils of the more favored classes suffer. They are accustomed to go bareheaded at all seasons of the year, and barefooted in the summer. Their beds are of straw. Their clothing is as simple as possible, but always kept whole.

Their food (which they assist in preparing) consists, like that of the Swiss peasants, generally of soup, vegetables, bread, and milk, at every meal. They have meat but once or twice in the week, and wine (the wine of the country, resembling our cider,) only at their occasional festivals, at the harvest home, the new year, and the birth-day of Vehrli. The aspect of health and cheerfulness which pervades the school, is a sufficient evidence that all their physical wants are amply provided for.

The following sketch will give you some idea of the daily routine of the institution. The pupils are awakened at half past four or half past five, according to their ages. Half an hour is allowed them for washing and making their beds. After a lesson of one hour in summer, or an hour and a half in winter, they attend to devotional exercises and breakfast. Here the task of each division and individual is assigned for the day by their teacher Vehrli. At eleven they return to dinner, and then have a second lesson of an hour and a half. At five or six, according to the season, they have a piece of bread, and a third lesson of an hour and a half; and at seven they sup. An assembly is then held for the review of the day, which is closed with devotional exercises, and the younger pupils go to bed. The elder again receive instruction, or occupy themselves in some useful manner.

During the winter, when their employments are not sufficiently active, they pass an hour in the evening in gymnastic exercises or active games.

During the summer, they are occupied almost entirely with the labors of the field, proportioned to their capacity and strength. The youngest are employed in gathering stones and weeds from the fields. At this season, ten or twelve hours on an average, are devoted to labor, and three or four to instruction, when circumstances allow it. During haying and harvest, instruction is omitted; and the pupils have sometimes volunteered to labor seventeen hours daily; but this is seldom allowed.

During the winter, they spend seven to nine hours in labor, and receive five, or even six hours of instruction. The time which is not devoted to the care of the cattle, threshing, and other labors of the farm, is employed in making baskets, straw mats, in selecting seeds, and in breaking up stones for repairing the roads. As an additional occupation, as well as a useful one, all the pupils are *taught to sew*, so far as to mend their own clothes; but to avoid taking them from their work, this task is usually given to the pupils of the girls' school, under the direction of the housekeeper.

In addition to this, every pupil has some part of the household economy entrusted to him. One person, for example, is assigned to keep each of the rooms clean; another to take charge of the tools; another the slates, &c., in order to give the habit of responsibility and regularity, as well as to accustom them to their occupations. Their tasks are assigned, and superintended, by three persons, called the household council, and are changed every three months, in order to accustom all to each branch of duty. Even the children have some little task assigned them, that they may imbibe the same spirit and the same habits.

They are also furnished with the opportunities and inducements to voluntary labor on their own account. Each of the younger boys has a little garden spot for vegetables, and another for flowers, which he cultivates

himself in his leisure hours. He is allowed no manure but that which he collects from the roads, or from the dry leaves of autumn. He disposes of the productions as he pleases. If he sells them to the establishment, they are credited to him, and, at the end of the year, the money is paid to him. He may either employ it or place it at interest in the establishment, even if only a franc. A fruit tree is also assigned to every two or three boys, who take care of it, and dispose of its fruit in the same manner. The elder pupils assist the younger in these occupations.

Such is a brief outline of the general arrangements of the Agricultural School.—*Annals of Education.*

ART. XI. *Uses of the Potato.*

The different uses to which the potato may be applied are the thirty-one following:

1, 2, 3. Its haulm in a green state is good food both for cattle and sheep; dried and burned, the ashes afford potash, or will form artificial nitre beds.

4. The tubers in a frozen state afford starch.

5. Potatoes, young or old, may be eaten roasted, steamed or boiled.

6. They may be made into bread, with one-third part of flour.

7. Soups may be made of them; they may be roasted or fried.

8. With the flour of potatoes, every description of pastry may be made.

9. Converted into fecula or starch, or cut into slices and dried by steam, they may be preserved for any length of time.

10. Vermicelli, and tapioca, articles which may be made of the flour or starch of any plant, may of course be formed from them.

11, 12, 13. They are mixed with gravy; they are made into paste and starch.

14. Mixed with stucco, they form an improved plaster.

15. They nourish every description of domestic animals, and, during winter, are eaten by hares and rabbits.

16. Cut into slices, and thrown in a certain proportion into cauldrons of boiling water, they prevent the sediment of water from adhering to the sides and bottom of such vessels.

17. They form a wash, or thin plaster for building, which may be colored by soot, ochre or other colors, as washes of lime are colored in this country.

18. Roasted to a brown state and ground to powder, they make a very good coffee.

19. Crushed, they are employed for whitening linen and other cloth.

20. The water expressed from bruised potatoes is a rapid promoter of the germination of seeds.

21, 22. The fecula, or starch, with sulphuric acid, is converted into syrup, from which a species of sugar may be obtained, analagous to cassonade, (moist sugar.)

23. With soot and other mixtures, this syrup makes an admirable blacking.

24. Crushed potatoes, or their fecula, will afford spirit by distillation.

25. Potatoes may be cultivated in caves and cellars, which resource might have saved Missolonghi. We were rather surprised at this remark of Messrs. Payen and Chevalier, as every gardener knows that the young potatoes formed in cellars are merely a remodification or transfer of the nutriment contained in the old potatoes, and as this transfer is always made at a great loss of nutriment, if the besieged at Missolonghi had enough of potatoes to plant their cellars, it would have been more profitable for them to have eaten them as they were, than to have encouraged them to form new tubers.

26, 27. The water contained in the tubers of young potatoes, may be employed in dying gray, and the blossom forms a beautiful yellow.

28, 29. The water of potato blossoms cleans cloth of cotton, wool and silk, and assists in the manufacture of artificial soda.

30. A potato diet cures the scurvy.

31. The sediment of the fecula, mixed with the powder of charcoal, may be made into little billets or bricks, either for building or burning.

All those uses are independent of the application of the apple, or fruit of the potato, the water of which, when immature, might probably be used as in 27, 28 and 29; and when ripe, like the tomato. The tender tops may be used as spinage.—*N. England Farmer.*

ART. XII.—REVIEW—*A Treatise on the Vine; embracing its History from the earliest ages to the present day, with descriptions of above two hundred foreign, and eighty American varieties: together with a Complete Dissertation on the Establishment, Culture and Management of Vineyards.* By WM. ROBERT PRINCE, aided by WM. PRINCE, Proprietor of the Linnæan Botanic Garden. New-York, 1830. 8vo. pp. 355.

Although the dedication of this work is addressed to an eminent individual, yet it appears to deserve attention as of some interest to the general reader.

"*To Henry Clay, of Kentucky:*

"SIR—It is with sentiments of gratification and pride that I inscribe this work to one who, through life, has been the undeviating patron of American industry; whose name is interwoven with the various objects connected with the development of our national resources; and whose unwearied efforts have been devoted to imparting that impulse to our domestic pursuits which is best calculated to advance the high destinies of our Republic. The knowledge of these interesting facts carry [carries] the conviction with them of the peculiar appropriateness of the present dedication," &c.

These sentences are well calculated to impress the reader with the assurance, that this work is the production of an author no wise deficient in the requisite qualifications necessary to place him on a level with one of the most eminent characters of the age; and leaves him at no loss to perceive the high estimation, in which the writer views the merits of those labors, which he himself has performed for the best interests of his country, in presenting its citizens with a "Treatise on the Vine," peculiarly adapted for ranking on a par with those interesting facts connected with the public merits of Mr. Clay.

In his preface the author observes, "The formation of a code of rules for any particular species of culture is an undertaking arduous in itself, and at the same

time attended with great responsibility." This is one of the best sentences in the book, and had he concluded his preface with the first paragraph of fourteen lines, I should have thought it a sufficiently good one. And had he commenced directly to inform us of the nature of those means, by which he had been enabled to form a code of rules for the successful cultivation of the grape vine, founded upon well tried experiments performed in this country, he would in that case have executed a service that would have justly entitled him to rank among the benefactors of his country.

But instead of adopting this course, in his next paragraph he launches us out into the wide world, in the following strain:—"It is with the various species of culture long known to the world, as it is with political knowledge; our Government and National policy derive their perfection from a consideration of the experiments made by the nations which have preceded us: our country in like manner borrows from every other nation the lesson of experience they present, and profit by the intelligence of her citizens in seeking to embrace and improve upon what others have acquired."

"Of similar character must be the introduction of the vine culture, and the establishment of the wine press. We must collect from the four corners of the earth all that combined intelligence and experience can offer, and then mark out the course most profitable for us to adopt, adding thereto such improvements as our own knowledge would indicate. In accordance with this view of the subject it is the anxious purpose of the author that this work should present the *concentrated intelligence* of every clime derived from all the experience of the past."

This is a grand and magnificent prospect of that unlimited expanse from which the author proposes to draw his nectariferous ingredients for composing a "code of rules" for instructing Americans in the culture of the grape vine.

In his very next paragraph, however, he exhibits a degree of precipitancy in his statements, rather calculated to mar the confidence of his readers. "Hence," says he, "we possess not only all the advantages that France and the other wine countries enjoy, from our having already introduced the choicest varieties which those climes can boast, but this advantage is enhanced by the numerous varieties which our own country presents to us." Now it is universally known, that although there are many of the choicest varieties of European grapes introduced here, yet no instance has occurred of any method having been found out whereby their cultivation can be prosecuted with any thing like a similar degree of success attendant on their culture in France and the other wine countries of Europe. Nor has any success that has hitherto attended any attempts to extend their general culture here been such as to warrant any sanguine expectation that such an event can ever be accomplished. Unless some successful method of cultivating them can be attained, their mere introduction into the country is of no more value than would be the importation of as many sticks of their crows' nests. None of our native vines have as yet been considered fit to rank upon a par with the choicest European sorts; and until we can either attain their improvement in them, or can subject the European sorts to a degree of culture similar to that which they are susceptible of in that country, it must be highly detrimental to our improvements, to persuade us that we enjoy advantages which we have by no means attained; thereby diverting our attention from those considerations to which above all others they ought to be directed.

Such a radical error is peculiarly unfortunate in an author, who writes for Americans, as that kind of instruction or information necessary to assist them in attaining that point to which he considers them already arrived, is the very kind they want the most. But, from the two favorable views entertained on the subject by the author, his manner of treating it renders the undigested mass of his extensive labors comparatively of but little value. Whereas, if he had limited his work to a more concise investigation of the nature of those obstacles, which are well known to exist in the country, in our attempts to attain any thing like a general successful culture of the vine, they might have been productive of much good.

His extensive references to the French modes of culture too, were rendered less necessary, as many attempts have already been made to cultivate the vine here by experienced vignerons, from the various wine countries of Europe, who could not be ignorant of all the modes of culture practised there; still no results even of their labors have as yet been attended with such success as to be considered sufficiently advantageous to encourage their being recommended for general practice.

Had Mr. Prince instead of dwelling so much upon the history of the vine from the earliest ages, giving us a description of so many foreign vines, &c., turned his views of the subject more to the history of its introduction to this country, and pointed out the various means which have been employed in promoting the progress of its cultivation here, his Treatise, although in that case it would not have afforded such an opportunity for displaying his literary researches, nor perhaps been so acceptable to some classes of readers, would nevertheless have been much more useful and interesting to that class of actual cultivators, who are anxious to obtain every information concerning the nature of those means, which have appeared the most likely to prove successful for its cultivation amongst ourselves. Its great liability to suffer from mildew, from the attacks of insects, and from frosts, are serious obstacles to its culture in this country. The application of lime, sulpher, &c. which are resorted to, are not natural improvements in its culture. And unless some method can be attained so as to render the resort to such applications generally unnecessary, it would be in vain to expect that it can ever be cultivated upon an extensive scale.

There is a copy of a letter from the late Mr. Wilson, of Clermont, near Albany, published in the New York Farmer of January 1st. 1828, on his method of cultivating the foreign vines, that affords a far better example of a successful mode of improvement in their management than the application of artificial washes, &c. It contains some of the most valuable information, because founded upon the facts of experiment, proved during a succession of ten years' trial; and by which he completely succeeded in growing the white Sweet-water and Burgundy grapes to great perfection; entirely freed from the effects of mildew, to which, by the common method of culture, they had for a number of years before been so much subjected, that he had concluded to take them up and throw them away.

A careful collection and publication of the various

degrees of success that has attended its culture, in the different kinds of soils and situations here: an account of the particular varieties, whose culture has been attended with the most favorable prospects of success, &c., are considerations of great importance to the actual cultivator; but which, with the exception of Mr. Bonsall's letter, are but very slightly touched upon in the treatise. The great value of the information contained in Mr. Bonsall's letter, however, which the author has had the good judgment to insert in his work, is worth the price of the whole book. And it would be unjust in those, who, from being familiar with the writings of European authors, may set a less value on the other portion of the work, to insinuate any thing to detract from that kind of merit which it possesses; and which, to those unacquainted with the writings of London, &c., cannot fail to present a mass of information collected from the "four corners of the earth," on every subject connected with the vine since the days of "Noah" highly entertaining. And even to those who have read all that most of the European authors have written upon the subject, the novelty of its appearance under the pompous dress of the author's beautiful style, decorated with the lofty embellishments of his magic pen, it can scarcely fail of producing the pleasing emotion of a certain species of admiration, which perhaps the labors of no other writer could excite.

The following paragraph with which the author winds up his preface, may serve as a specimen of that kind of style just alluded to:—

"Recent accounts" says he "tell us of vineyards having been established in the more northern parts of Germany, and in high latitudes in Russia; and the Swiss have been, for a course of years, most plentifully supplied with wine from their own soil. Shall then America alone be debarred from this, one of the bountiful gifts of nature? Shall a country, possessing every variety of climate which is combined in all the wine countries of Europe, and extending through all the degrees of latitude which are there deemed the most genial to its growth and produce, be said to be totally inappropriate to its success? Shall it be said that a plant, which culture has accommodated to almost every other clime to which it has been introduced, can find no spot whereon to flourish, in a country extending from the 25th to the 47th degree of latitude; and that we can boast no such congenial soil in an empire, whose bounds are the St. Lawrence and the gulf of Mexico, and whose settlements already extend from the shores of the Atlantic to the sources of the Missouri? It is high time such delusions of blinded theorists should give way to the lights of reason and of judgment, and that the culture of the vine, to *every variety of which* we have a soil and climate suitable to offer, should assume that importance to which it has already attained in countries possessing comparatively few advantages. Let, then, the beams of intelligence, which are imparting so much benefit to mankind by their wide diffusion, disperse these clouds of ignorance and error from the enlightened horticulturists of the American republic."

One great misfortune in the execution of the author's immense labors in the Treatise, is his total omission of inserting in it that "code of rules," which from the language in the preface the reader was warranted to expect, and without which it seems difficult to understand what could have been the author's views in compiling it.

It appears very extraordinary too, that after having fulfilled in such a masterly style, in accordance with his proposals in the preface, a collection from the "four corners of the earth," of all the "concentrated intelligence of every clime," derived from all the experience of the past, and after all neglect to fulfil the other part of his proposal, namely, to "mark out the course most profitable for us to adopt."

Here the reader is left in the possession of a collected mass of viniferous information, to digest which, in such a manner as to render it capable of ever being formed into a "code of rules," fit for any valuable purpose to an American cultivator, present "an undertaking arduous," with a witness.

This brings us to such an unfavorable view of the work, that I sincerely hope, if any other reader of it has been able to discover "that course most profitable for us to adopt," which the author proposed to "mark out," that he would either send a direction to the Editor of the New York Farmer and Horticultural Repository, informing him at what page it is to be found, or if not too much trouble, a quotation. Neither the merits of the work can be unjustly depreciated, nor the public deceived in this matter.

It is impossible to produce a quotation from a book as an evidence that it never was in it. But there can be no difficulty in producing an extract, as an evidence of these valuable deductions, which such a vast collection of "intelligence" derived from the "four corners of the earth," may have enabled the author to lay down for our direction, if any such are contained in it.

Mr. Bonsall's letter at the 331st page, contains a very distinct statement of that course of culture, which he has marked out as the most profitable to pursue, and does pursue successfully. But he did not form his "code of rules," by collecting the "concentrated intelligence of every clime derived from all the experience of the past." No! His letter explains them as his own, formed by actual experiments, executed under his own directions, upon American soil, and in American climate. No man can mistake them, nor read them without perceiving the great assistance they are calculated to afford the actual cultivator.

The remarks too, from the pen of Professor Nuttal, at the 224th page of the Treatise, are highly interesting; and his arguments in favor of the practicability of improving our native vines to such a degree, as will totally supersede the necessity of depending upon foreign supplies for wine, are illustrated by the clearest evidences of analogous facts.

The writings of such men as these, together with those of Adlum, Gimbrede, &c. ought to be regarded as public monuments of that imperishable fame, which as original and practical founders of that system of vine culture, which bids fair to establish upon a sure basis, one of the most desirable resources of national enjoyments, justly entitle them to a nation's gratitude.

No system of authorship can be more detrimental to the advancement of our improvements in the vine culture, than that of burthening the reader with such an embarrassing compilation of indigested matter as that which occupies the chief portion of Prince's Treatise on the Vine; because it is well known by experience, that in that state it is inapplicable to American practice, and only directs the cultivator's attention to foreign systems and practices, which, if he at-

tempts to imitate, can only lead him to disappointment and loss.

By indigested matter, I mean all that is compiled from foreign authors, on every branch of vine culture whatever, that has not been so modified to the peculiarities of American climate by the author's actual experiments, as may enable him to present it purified, and moulded to the practical standard of our own current coin, ready for immediate application to accomplish the precise design for which it is intended.

This is a mode of preparing writings for publication, on American culture of every kind, that requires patience and perseverance. But it is the only one that can be depended on for accelerating our successful advancement.

A finer specimen of this kind of authorship, I have never met with, than that of Mr. Bonsall's letter before referred to. Here the reader is left at no loss to understand the degree of success that attends the particular mode of culture described; and he is at the same time informed of the difficulties he has to encounter in his farther exertions to extend its sphere. These are achievements worth accomplishing; and nothing could have presented their great value in such a clear and perspicuous point of view, as that contrast which they exhibit to those vast compilations throughout the other portions of the Treatise, which, if not actually detrimental, appears in the state they are presented, so totally inadequate for affording any precise or useful instructions calculated to advance the vine culture one singly degree.

New York, Jan. 1831. WM. WILSON.

[*Note by the Editor.*—At the request of Mr. Wilson, we will, if our limits permit, insert Mr. Bonsall's letter in the next number.

Should Mr. Prince publish another edition of his work, we advise him to leave out the letter on page 318, from Washington, to a savant in this city; we will give our reasons verbally.]

[The following remarks, principally taken from a work on the Breeding, Rearing and Fattening Poultry, reviewed in the Southern Agriculturist, give the method of raising Turkeys in France.]

ART. XIII.—*On the Management of Turkeys.*

To make a Turkey Set.—This may be done with still more certainty as follows: the bellies of the females are dipt in cold water, plucking the feathers from underneath it, and flogging them with a sprig of nettle, keeping them warm on a layer of straw; they may be also made drunk with bread soaked in wine and a little brandy; and in this state of intoxication they are placed on those eggs intended for them. On recovering, they seem to have already taken an affection for them; they continue to set on and take care of them, and become as good mothers as those who had shown the greatest disposition to fulfil the duties of that situation.

Whilst they employed, the setters should be kept quiet and at ease; they are naturally very timid, and should not be disturbed by the frequent entrance of any one, or of those to whom they are unaccustomed. The nests should be placed in some dry, dark, and warm situation, and at some little distance apart, so that they may not rob each other of their eggs.

The advantages of setting many together.—That if any accident happen to the setter, it may be remedied by giving up to another those eggs that are hatching, or ready hatched: besides, the young ones being all of the same strength, they do not starve the weaker ones. It is easier and more saving to rear them in this manner, in flocks, under the direction of a number of *turkey-hens*, than to leave each family to its mother.

Another advantage derived from this practice, is to determine the females to set a second time on the common fowls' eggs; or still better, to recommence laying a second time. In fine, when two broods of young ones are given to one *turkey-hen*, it is a means of procuring repose to the weaker one, and of obtaining sooner a second laying of her.

But when eggs, or chicks are about to be slipped under another setter, it must be done so that she does not perceive it, the evening before is the proper time for this intromission, so that on the morrow the new comers may appear to be of the family. This single caution is also sufficient in substituting other eggs, and taking from the setter those on the point of being hatched.

The *turkey-hen* takes and sets on the fresh eggs given her without the least difficulty; but it is proper not to give her more eggs than she can possibly set over and heat with the body.

In those farms where a great quantity of poultry is wished to be reared, there is great advantage in keeping *turkey-hens* on purpose to set, the more so, as, of all setters, they are the most patient and assiduous. When the brood of chicks is hatched, the young ones may be given to another mother, and a double number of fowls' eggs dexterously slipped under her, which, as they only take one and twenty days to hatch, do not fatigue the setter so much as would two broods of her own eggs, one after the other; besides the way to get early pullets is by giving up the brooding of them to the *turkey-hen*, whose laying is sooner over than that of the common fowl, and to put her in a way of having the second lay.

Management of Turkey Chickens.—According to the assiduity of the setter, it is on the thirty-first or thirty-second day of setting, that *turkey chickens* issue from their prison; but as they are not born altogether, the housewife must put them successively in a wicker basket, filled with wool or feathers, which she must deposit in a warm place, and sheltered, especially in cold weather. When the brood is entirely come out, if the *turkey-hen* is not immediately to make a second, the little ones are given back to her, care being taken to supply them all with meat and drink.

In the number of chickens which compose the brood, there are some which, slow in hatching, seem to require a little help to get out. The egg then must be taken up and attentively considered. If there appears a mark, or a small hole, through which the bill of the chicken can be seen, the shell must be broken very slightly on the outside, lifted up with the nail, or the point of a pin, so as to make the hole wide enough for the head to pass, taking care not to touch the animal, who would immediately die; he must be drawn gently out of the shell and blown upon to take off the slime that covers it. Eggs, nearly hatched, are also sometimes put in warm water before the birth of the chick. This custom softens the shell, and shows whether the little one is dead or alive.

Those eggs which, on the third or fourth day of hatching, do not present at either of their extremities that clear point, or small hole, through which the chicken may be perceived, will produce none; they must be thrown out of the nest as soon as possible, as also the remains of shells, because they would spread a prejudicial infection, and might hurt the young ones.

But if there are circumstances in which the animal requires help to get out, it must be administered with much circumspection, and the operation here alluded to must only be resorted to when the chicken has already made an opening insufficient for the passage of the head; it is not less important to disencumber new born chickens from a pellicle with which the inside of the shell is lined, as also of that yellowish slime which covers the extremity of the upper bill; that matter is something like a grain of hempseed, and bears that name.

The food for chickens is first, bread crumbled and soaked in wine. It is given to them in the hollow of the hand, afterwards on a pallet; white cheese is mixed with it, or curdled milk with hard eggs, male nettle and parsley, chopped up and made into a paste, more moist than dry, laying it out on small, broad, flat stones, three or four inches by two in width. The little ones are divided into flocks of a small number, they are hindered from tormenting one another; by these means their feet and plumage are prevented from sticking together, such inconvenience being as much against their health as the beauty of their coat.

Although male nettle and parsley are the most wholesome plants for *turkey-chickens*, and are every where to be met with, bramble may be substituted to these when not to be got at. They are mixed with barley-meal, beans, maize, according to local resources. They are made into balls about the size of the fist, which the housewife holds out in her hand to the chickens. They then press and place themselves around her, and peck at the paste till they are full. The housewife's girl must be careful to give it to them several times a day as often as they digest. Water is given them to drink in shallow vessels.

As the chickens at the moment of their birth, give no signs of seeking their food, and as they are not instructed in the least so to do by the mother, who seems to be more taken up with her own preservation, some impatient housewives have thought it best to feed them; but however clever a housewife's girl may be in this way, it is always hazardous, for the animal's bill is subject to be broken; it is in this instance that it is necessary to admit two or three eggs of the common fowl to those of the *turkey-hen*, ten days after setting, so that the young ones may be hatched at the same time; as the common chickens peck and eat as soon as out of the shell, they become, for *turkey chickens*, an example which they imitate, and which determines them to eat a few hours sooner, which is of some use.

Turkey-hens are not only the most assiduous setters on all sorts of eggs, they are, moreover, preferable to any other female bird in the farm yard, for leading the little ones of different families; they show the same regard for them as their own, no bird of prey or wild animal dare approach; the common chickens led by a *turkey-hen* find food in greater abundance and fatten sooner; they leave their nurse-mother later than if she were a common fowl.

The weak state of the first stage of the chickens lasts, in general, for two months, or till the nipples which the neck and head are supplied with become of a dark or light red. That remarkable time in the natural history of this bird, is really a critical one for them; the dangers which surround them during their feeble youth, diminish, and they lose the name of chicken for that of *young turkey*.

Nature, by coloring their nipples, seems to tell us that these birds are no longer in need of those unceasing cares which have not been spared towards them; and that to favor this eruption, the same cares must still be prolonged, the food increased and rendered more tonic, by adding the yolk of eggs, wine with crumbled bread, wheaten flour, bruised hempseed, &c.

After the shooting of the red, which must be looked upon, as I have already observed, as the time of their being seasoned, the *young turkies* go into the fields with their mothers, who are not long before they are busied with a fresh laying, they mix without danger or difficulty with the turkies of the preceding years, if there happen to be any. They roost in the open air, on trees, or on the roosts prepared for them; they may till the month of October be led into fallow fields, meadows, vineyards, after harvest time, mowing time, and the vintage; in the woods after the falling of the acorn and beach nut; in short, in every place where there is wild fruit, insects and corn to be picked up; but they must, above all, be kept away from vineyards when the grapes are ripe, for hail cannot do more mischief; they return home to the farm in the evening, well stuffed with all the insects they have swallowed and rid the fields of, with the corn which has escaped the hand of the gleaner, and a quantity of subsistence which would be absolutely lost to the proprietor.

Independent of the male nettle, parsley, every plant which is allowed to possess tonic and stomachical virtues, agrees particularly well with turkies of every age; fennel, wild succory, mil-foil, may enter into the composition of their food. A scorching sun is fatal to these birds, as well as rain, therefore intelligent turkey-keepers take care to lead their young flocks to pasture, only during the moderately warm hours of the day.

ART. XIV.--*Beecher's Machine for Threshing Grain, Shelling Corn, Cutting Straw, and Grinding Provender.*

On seeing the following drawing of this machine, we were as much prejudiced against it as we are against some quack nostrum that is recommended as a certain cure to all the bodily ills to which man is subject; but on inspecting a model, its simplicity and apparent adaptation for all its ostensible purposes, struck us forcibly and favorably. On the supposition that it does the work as it is recommended, it is the best machine with which we are acquainted. We would not, however, advise farmers to buy either this, or any other machine, without positive knowledge of its having been satisfactorily tested.

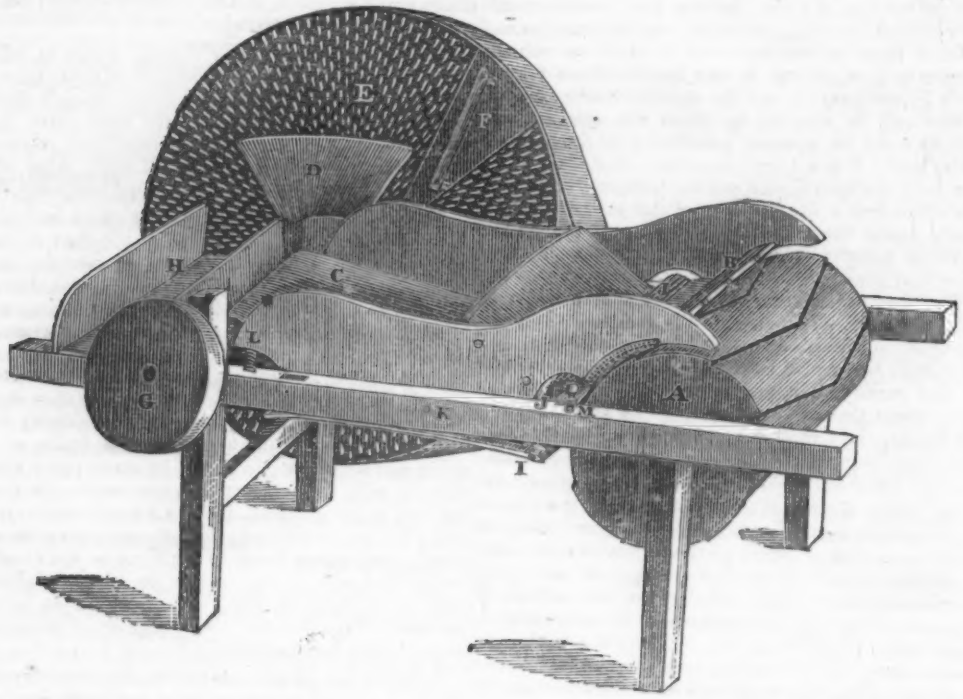
A full size machine for a one horse power can be had for fifty dollars; and will "thresh twenty, shell thirty, or grind two, bushels in an hour." The following is among other recommendations:

This may certify, that we have seen one of B. D

BEECHER's combined machines for threshing grain, shelling corn, cutting straw and grinding provender, in operation, and unhesitatingly say, that we believe it far superior to any other machine, it being very simple and durable, and doing the work in the best manner.

MULPH STUART, JOHN HASKINS.
SAMUEL BOND, JR. DAVID BROWN.

Newburgh, Dec. 15, 1830.



A. Threshing Cylinder, 30 inches long, 16 inches through, with 8 beaters suspended on an inch shaft, with a 5 inch whir on the end.

B. Concave, made of 15 pieces of wood, 1 inch wide, 3-8ths thick, set edgeways, with a plate of iron between each, projecting inward 3-16ths of an inch, with 4 rivets passing through the whole.

C. Apron, which carries in the grain.

D. Hopper to the grinder.

E. Corn Sheller, acting against a half circle, suspended by springs.

F. Straw Cutter, a section of the wheel, with a knife put in and removed at pleasure.

G. Band Wheel, 3 feet 3 inches diameter, 3 thick.

H. Straw Box, so fixed as to remove at pleasure.

I. Spring to hang the lower Feeding Roller on.

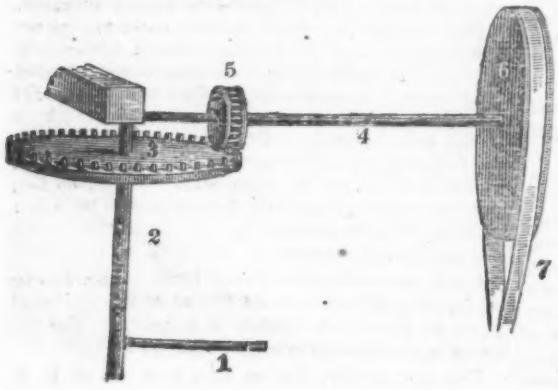
J. J. Upper Feeding Roller, 4 and a half inches, with 10 inch whir.

K. Hinge, on which the concave shoe is suspended.

L. Spiral Springs, to keep down the concave.

M. Guage Screws, to regulate the concave.

The horse power is made of wood and can be furnished for twenty dollars. No farmer should buy a threshing machine with a view of accomplishing any considerable amount of work, by hand power; the production of a horse power is, in the end, far cheaper.



Machinery for Applying Horse Power.

REFERENCES.

1. Lever, nine feet long.

2. Upright Shaft, eight feet long, nine inches through.

3. Cog Wheel, seven feet in diameter.

4. Line Shaft, suitable length to reach into the barn.

5. Trundle Head; twelve inches diameter; thirteen wallowers.

6. Barn Wheel, seven feet diameter, inside the barn.

7. Band, extending to whir twelve inches in diameter on main shaft of the Machine.

ART. XVI.—*Description of the Curculio, with remarks on some other Insects. By* WM. WILSON.

MR. EDITOR,

Sir—The entering into discussions on subjects not generally well understood, and on which it appears there is yet much to learn, renders the situation of those who offer their observations thereon to the public liable, in some instances, to the scurrilous and useless abuse of those who seem to have nothing else to present on the subject. From the great hue and cry that has lately been sounded so loudly about the awful destructiveness of the curculio to our fruit trees, the public had certainly good grounds to expect before this, some other kind of information from those who have complained so bitterly against it, than the mere high sounding proffer of a two thousand dollar premium. The very vague manner in which the premium is proposed for destroying a genus of insects, of which more than six hundred species were known to Entomologists many years ago, leaves strong grounds to suppose that those who offered it had either taken it for granted, that the public were in possession of a degree of information on the nature of this insect, to which they have not yet attained, or else that there must yet remain some necessity for further information on the subject by themselves; for it must be remembered, that the way in which the premium is proposed, implies a sufficient knowledge on the part of those who offer it, to warrant the belief that this knowledge is of sufficient extent to justify them in exciting horticulturists to set immediately about contriving means for effecting its destruction. This is an event that could never likely be accomplished without first acquiring an extensive knowledge of the nature and habits, &c. of the insect, which if the proposers of the premium had explained, the public would then have been at no loss to judge how far the complying with their proposals might have appeared practicable. Had they offered a number, say half a dozen or a dozen small premiums, to such as would publish a few useful statements founded on the actual observations that may have been, or that might be, made upon the curculio or any other injurious insect, the public would undoubtedly be immediately and highly benefited. No degree of credit would in this case be monopolized by bare pretensions. But the actual performer would receive his merited share. In this case the proposers would be placed on an equal and fair footing with the public. And all that degree of merit to which their publication upon the curculio might entitle them, would no doubt be cheerfully assented to.

This is undoubtedly the first fair step to be taken in the business. And when it is accomplished, the public will be as well qualified to judge of the future measures to be persued as the proposers of the premium. And they will then too, be better qualified to estimate what degree of credit is at present due to the projectors of such an undertaking. The above, at least, is my view of the subject. And the highest value I set upon any premium, is the gratification of being thought capable of contributing any thing of so much importance as to deserve the approbation of those for whom it is performed.

It is with a view to comply with the wishes of a correspondent in your last number, signed D. T. that I send you the following description of a curculio. Some of the perfect insects are in good preservation, although a long while dead. The larvæ I have alive in active operation, riddling the stone of a peach like a sieve. As this is a state of the insect of full as much importance to be known by the horticulturist as that of its winged or perfect state, and one too, which Entomologists seldom define, I shall be as particular on this part as will enable I think any one who sees my description, to identify the same species wherever they may find it.

Its whole length when in the act of moving is about an eighth of an inch. Whenever it is touched, it rolls itself up like a pin head. Its color is white, but not like the dull opake white of the Egeria or Peach worm. Its body has the appearance of circular rings joined close together (annulated,) thinly beset with numbers of white hairs which all stand out erect. Its body tapers towards the tail. The circular rings rise like thicker folds towards the head, which is smaller than the fore part of the body, and has some resemblance to the head of a turtle projecting from under its shell, with a pellucid round like ball upon its crown, with two dark brown horny like appendages at the mouth. It has six legs on the three first fore rings of its body.

The specimens which I have, all procured from a half grown peach, which I took from under the tree two years ago, in which the egg of the curculio had been previously deposited, as the larva was soon after discovered in it. There was but little pulp upon the stone, and the larva after working a few tracks in it appeared to be lost. Some time afterwards a curculio made its appearance upon the woolly skin of the peach. I kept it close shut up in a box, in which was an ear of sound fresh corn, and thought little more about it, nor examined it until the late buzz about the premium, &c. I now find a number of living larvæ perforating the poor peach stone in all directions, with a lot of dead curculios and as many grains of the ear of corn bored out into round holes, just sufficient to contain one of the larvæ; and from several of which I have taken out the remaining exuviæ of the pupa. By which it appears the larva only attacked the grain for the purpose of accommodating the pupa as the larvæ are now all at the peach stone, and no more of the corn seems to have been meddled with, except the eating out of an aperture sufficient to contain the pupa.

Although I have expressed strong doubts as to the position in which the curculio attacks the peach, &c. I should think it derogatory to the obligations I am under to promote the best interests of horticulture, to keep back any information that may lead to public benefit, although such may be considered by some as operating more in the favor of the correctness of the opinions of others than those of my own. But when the generally very imperfect state of knowledge on the science of Entomology is taken into consideration, much allowance will be found proper to be extended to all who venture to express their sentiments on the subject to the public, when in some instances, such sentiments may, upon further investigation, be found erroneous. No man ought to be offended at being corrected by the superior discoveries of others, nor so vain as to sacrifice the accumulating use of his own for the sake of wishing to be thought what no man ever was. It was from not knowing, and which perhaps very few yet know, that the peach is attacked by the larvæ of a very different insect from either the Egeria or Curculio; and which by my finding it not to be the peach worm, I concluded erroneously that it was a

species of curculio, but which on watching its change to the perfect state, proves to be a species of Julus, one of the apterous order of insects; and never ascends the tree, but that it devours the larvæ of both the curculio and the peach worm, I have ample evidences which I will communicate to you on some future occasion. I now proceed to give you a description of the curculio in my possession. The generic description I take from Stuart's Elements of Natural History, which is his 27th genus of the Coleoptera Order. "Curculio, Antennæ clavated; situated on a horney prominent rostrum; four filiform palpi." He divides the genus into several sections and describes 62 species. Under the first section designated "Long snouted; thighs simple" he describes "Curculio Cerasi, black; the antennæ ferruginous; the thorax with two tubercles. Found on the cherry."

Under another section designated, "long snouted; the thighs dentated. Curculio Cerasi, Black; the elytra pale and oblong, found on the cherry and pear, eating the epidermis and marking the leaves with spots." Also under the same section, the "Curculio pomorum. The anterior thighs dentated; the body grey and clouded. Found in the flowers of fruit trees: a small species; there are two transverse faciæ on the elytra," In another section "short snouted, the thighs dentated. Curculio Pyri, of a dark bronze color, found in the flowers of the pear and the plum; the larvæ in the leaves of the pear. Elytra oblong with seven deep striæ with crenated striæ between. Feet and antennæ reddish."

This last agrees very near to the specific characteristic of the Curculio I have; the only difference is in the deepness of the striæ, which in my specimen is slight, but this may be owing to its confinement from the light; and the larvæ being so greedy on the Peach stone may be more an act of necessity than choice. The length of the Curculio I have, is the same as the larva, about an eighth of an inch.

I have given the description of the other species, in hopes they may be of some use in assisting the readers of your paper to identify some of them the ensuing season.

The curculio nucum, or nut weevil, is figured in Louden's Encyclopædia of Gardening, page 429; and is thus described by Stewart: "Body grey of the length of the rostrum. Found in the nuts of the shazel. The rostrum before the antennæ is red; the scutellum, heart shaped and white. Loudon's figures of the pupa and larva, have the letters c and d wrong placed in my copy, as he refers to the figure letter c for the larva, which is the pupa; and the letter d which he refers to as the pupa is the larva. Both no doubt typographical errors, but which might lead those unacqainted with the insects into difficulties in attempting to identify such a species, which very likely exists here. Perhaps the innumerable perforations which are made in the acorns of our oaks, are the effects of a curculio of a similar species. Some of your readers who live near the oaken districts might examine some of them, and send you a description. It requires a little magnifying glass, of the cost of one dollar, to distingnish their forms distinctly.

I shall now conclude by recommending to the notice of your readers, one of the most powerful, stately looking insects that ever visits our gardens; and which he never fails to do during the months of July and August. I have no specimen of it by me, but I think it is about two inches long, with four large wings, of a bright iron rust red like color, with a bright light colored belt around its abdomen, from the extremity of which it unsheathes at pleasure a sting more like a warrior's dagger than any thing of an animal substance. It digs deep holes only in the hardest walks, to which it conveys the strongest caterpillars, and deposits them deep below the surface for the future food of its larvæ, the eggs of which I am well convinced are deposited in its body. It performs many other singular exploits amongst the insect tribes and plants. I have often wondered that it is not described in Say's two volumes on American Entomology; nor have I seen it noticed in any European work. Its four membranous wings and sting place it in the Hymenoptera order; and I think it will be found to answer the specific description of a Sphex. Its history is highly interesting to the horticulturist; but of this more anon —My candle's down below the socket, and I think I hear the beetle's drone.

ART. XVI.—*Miscellaneous, Original and Selected.*

Calendar of Flora.—MR. EDITOR,—In the 8th number of your Repository, page 179, you present your readers a catalogue of trees and shrubs, producing a succession of flowers from Spring to Autumn, by Michael Floy.

At the conclusion of his useful memorandum, he is pleased to say "I may give you a list of hardy perennial plants and a further description of shrubs." I have been disappointed in looking over your last four papers, in not finding this list of hardy perennials, and should think Mr. Floy would render a very essential service, by giving publicity to such a *flora calendar.*

While on the subject of flowers, could you prevail on some of your intelligent gardeners to furnish a little instruction for constructing and stocking a Green House;—stocking, with a few choice plants, that will produce flowers and verdure during winter and spring; not Botanical curiosity but verdant and beautiful.

The luxury of these exotic gardens, though heretofore not often to be found in our section of the state, is now becoming rather more common, and it is to be hoped the taste will increase till every good garden will have this mark of elegant and refined enjoyment attached as a necessary appendage.

LANSINGBURGH.

The Curculio.—I have no doubt that *J. B. G.* is right and our friend *W. Wilson* wrong, in regard to the *Curculio;* but I regret that J. B G. has not expressed his ideas in milder and less offensive terms. If we make mistakes through haste or inadvertency, and happen to advance an erroneous opinion, we ought to be set right, and to bear this is mortification enough, without the addition of harshness.

I have admired the independence of the Editor of the N. Y. Farmer on various occasions; but I think he ought to consider himself, in all such debates, as chairman of the committee, and his right to call the disputants to order, *whenever they forget the language of gentlemen*, will not be questioned by any of his readers. We are all interested in learning *the truth* respecting the *Curculio.* It is not a case where the contending parties have opposite interests—where A, who is wrong, must pay B, who is right—or where C

gets into office, and D goes out—but a case where E and F endeavor to arrest a depredator, but take different roads. Both cannot be right, but E on the wrong road, ought to rejoice that F had detected their common enemy. E and F OUGHT TO BE FRIENDS.

T.

Remarks by the Editor. J. B. G. and ourselves must make amends by promising to do better hereafter. It happens, however, very well, for this time, that our friend Wilson is good natured, and knows how to preserve his dignity on such occasions.

To make Good Cider.—Excellent cider may be made by manufacturing the liquor under a temperature unfavorable to fermentation. I remember to have drunk several days of such under the appellation of "Wedding Wine" (and which had recently been used on such an occasion) without suspecting it to have been prepared from apples—and although, to "our" unpractised taste, it was far superior in flavor to many of the costly wines that grace our public tables, the whole secret of its preparation consisted in hard freezing the liquor in large quantities after slight fermentation. J. S.

Poison from Weeds and Potato Tops.—We have received a communication from Mr. J. H. Gibson, of Philadelphia County, from which the following facts are obtained. On the 15th of Dec. last it rained very plentifully. The next morning a favorite cow was lying down and could not get up to be milked. She appeared in some pain, groaned, and her head was doubled back on her side much in the manner of a kitten asleep. On being moved, her muscles were found very flexible, but she had not the power of moving from any position in which the strength of several men placed her. She was drenched with oil and whiskey. There was no distention. The eye looked bright except when occasionally rolled about in the paroxysms of pain. The cow had always been healthy, and was so the night before. She died, and in the gasp of death discharged a large quantity of dark colored fluid from her mouth and nostrils in a broad stream. On dissection, the first stomach had in it some dark colored water mingled with the food. The second stomach was filled with the different articles eaten in a very dry state. The gall bladder was much distended, and full of a dark fluid which had discolored in a short time the adjacent viscera.

Soon after, a pig belonging to the writer was affected by similar symptoms and soon died. Ten minutes after its death the stomach was found full of food, and directly opposite to something eaten, which resembled the dung of the cow; the stomach was found of a red ash color.

It appears that the writer had deposited a 'very large quantity of potato vines in the barn yard, which is hollow in the centre, so that the water does not pass off.' Potatoes belong to a poisonous class of vegetables, too many of the weeds were ripe before they were hauled into the yard, and strong infusions remained in the bottom of the yard; and from various circumstances and appearances, detailed in the communication, the writer is of opinion that the cow having eaten of drier food than usual, and drank of this contaminated water, 'was poisoned by the infusions of weeds of various descriptions, such as grow among highly manured crops, and of the vines and apples of the potatoes. The writer adds, 'I have kept cows and sheep in a close barn yard for months in the winter without water, *and when they were freely fed with rutabaga and potatoes*, they would not drink. But at the commencement of the season greater care is necessary.'—*N. E. Farmer.*

Salt Hay—Mr. Editor—I wish to inquire through the medium of the New England Farmer, the efficacy and benefit of using salt hay, as it is called.—There are many farmers on our sea coast that spend half the summer with a strong gang of workmen, in mowing the salt marshes, and in curing and making the hay—exposed to the wet and cold, and both night and day watching the tides in order to boat and secure what appears to my inexperienced mind a useless commodity. It also appears to me that half their labor, if exercised upon the upland or on their farms, in raising good English hay, would bring them a handsome recompense, not only in the possession of good food for their stock, but also serve to better their land, and induce them to bring more waste and low ground into a state of cultivation.—I should be happy to receive through your paper, some information on this subject, which perhaps may serve to correct the error of the farmers who thus waste their time and labor; or serve to correct me in thus wasting my time and sense on a subject of which I avow myself ignorant, or which may have been settled long ago by wiser heads than mine.—*N. E. Farmer.* *Duxbury, Jan. 4th.*

REMARKS.—We recommend the above to Long Island Farmers. There is scarcely a farmer on the Island who does not spend altogether too much time in procuring salt hay. Salt is a substitute. We should be pleased to have information on this subject from some of our Long Island readers. *Ed. N. Y. Farmer.*

Landscape and Ornamental Gardening, Horticulture, the culture of mulberry trees and silk, the ornamenting of public roads by shade trees, and the culture of grape vines are deservedly becoming popular subjects for lectures before Lyceums in the interior of New England. *N. E. Far.*

Manufacture of Silk.—In Connecticut, where the Sewing Silk business is carried on extensively, they derive a very handsome profit, as will appear by the value they attach to a mulberry orchard. A farm that would bring two thousand dollars without one, will as readily command three thousand with one; and Mr. D'Homergue states that converting the best silk into the aforesaid article, is as improper as it would be to manufacture the gold from the mines of North Carolina into frying pans and kettles.—His essays are a valuable production and will be the means of facilitating the growth and manufacture of silk in this country. He, together with Mr. Peter Duponceau, propose that the raw silk be reeled in a proper manner, and be made an article of exportation. I have no doubt it might be made a profitable branch of industry, but think the course it will naturally take, will first be to supply those persons already engaged in its manufacture, and those that will follow from the operation of filature establishments. As soon as silk is prepared in a proper manner for the manufacture of goods, the artists already in the country, that understand the manufacture of silk stuffs, will be called into action, and the manufacture of the various kinds will probably keep pace with the production.

We already manufacture silk fringe, suspenders,

ribbons, satin straws, silk lace, silk velvets, and other articles, and find a difficulty in obtaining the proper material. Whenever there shall be an overstock of the raw material for the aforesaid purposes, the exportation of the article will necessarily follow, but until that timo it will probably be consumed in the country. —*N. E. Farmer.*

German method of procuring Flowers in Winter.—According to the "Recueil Industrelle," the following method of expediting vegetation at will is practised in Germany;—A branch, proportioned to the size of the object required, is sawn off the tree, the flowers of which are to be produced, and is plunged into a spring, if one can be found, where it is left for an hour or two, to give time for such ice as may adhere to the bark to melt, and to soften the buds: it is then carried into a chamber heated by a stove, and placod in a wooden vessel, containing water; quick lime is to be added to the water, and left for twelve hours. The branch is then to be removed into another vessel, containing fresh water, with a small quantity of vitriol, to prevent its becoming putrid. In a few hours the flowers will begin to appear, and afterwards the leaves. If more quick lime be used, the flowers will appear quicker; if on the contrary, none be used, the branch will vegetate more slowly, and the leaves will precede the flower.—*Arcana of Science.*

Horticultural Society.—On December the 18th, 1827, some specimens of apples were exhibited before the Horticultural Society, which, it was stated, had been altered in external appearance by the influence of other kinds, the blossoms of which hung near them. This is a fact, which, if true, is utterly inexplicable to the philosopher.—*Ibid.*

For the Destruction of Insects.—Put into a sugar hogshead a small barrel of tar, pour upon it a pailful or two of boiling water, stir it, and then fill it up with cold; with this water the ground, and it will destroy all worms, grubs, and other larvæ, which are within a considerable distance of the surface of the soil. Should any escape, and make their appearance in the caterpillar state, immediate resource should be had to a strong infusion of elder tops or leaves, the moment the elder becomes green; this will effectually check the advance of all insects.—*Glasgow Mechanic's Magazine.*

Vineyard at Lansingburgh.—MR. FLEET,—We have, a little south of our village, a small Vineyard of about four acres, which was commenced about five years ago, 2 acres of which is in a bearing state. It has been managed these last three years by Mr. John Roller. The first year he sold some 8 or 10 dollars worth of grapes, the second year sold 90 dollars, and the third year 139 dollars worth of grapes besides selling many vines.

Mr. R. is an intelligent, industrious German and makes himself very useful among us: he thinks the climate and soil in this part of the state are as favorable to the culture of the vine, as any of those parts of Germany and the north of France of which the staple product is wine.

Sugar consumed in the U. S. is about 140,000,000 pounds annually. About 60,000,000 lbs. of this amount are imported from abroad. A duty of 3 cents a pound is paid on the imported, and that which is manufactured in the United States, to wit, the other 80,000,000 lbs. are sold the same price as the imported sugar, or for a price which includes the 3 cents per pound paid as a duty on the imported.

To Prevent Milk becoming Sour.—To prevent milk from turning sour and curdling, as it is so apt to do in the heat of summer, the milk men of Paris add a small quantity of sub carbonate of potash or soda, which saturating the acetic acid as it forms, prevents the coagulation or separation of curd; and some of them practice this with so much success as to gain the reputation of selling milk that *never turns.* Often when coagulation *has* taken place, they restore the fluidity by a greater or less addition of one or the other of the fixed alkalies. The acetate which is thus formed has no injurious effects, and, besides milk, contains naturally a small quantity of acetate of potash, but not an atom of free or carbonated alkali.

New Food for Silk Worms.—At a late meeting of the Royal Society at Lille, a letter was read from Clara Girodin, with which that lady transmitted samples of silk, produced in the years 1828 and 1829, from worms which had been fed wholly upon the leaves of the *Scorzonara.* She states that she could never discover any perceptible difference between the produce of worms thus treated, and those which were fed on the leaves of the white mulberry. The same changes and the same diseases affected either of them in an equal degree. M. Bose also states, that the silk from the worm nourished with the *Scorzonara* leaf, was sold at Lyons for twenty-four francs per pound (or 19s.); within a fraction as high as the silk produced in the South of France. This discovery is highly important to all countries where the mulberry is of precarious growth.

Dandelion Coffee.—"Dr. Harrisson, of Edinburgh, prefers dandelion Coffee to that of Mecca; and many persons all over the Continent prefer a mixture of succory and coffee to coffee alone. Dig up the roots of dandelion, wash them well, but do not scrape them, dry them, cut them into the size of peas, and then roast them in an earthen pot, or coffee roaster of any kind. The great secret of good coffee is to have it fresh burnt and fresh ground."

Vegetable Extract.—In the north of France an excellent extract of the herbs used in soups and broths is made by boiling them very slowly with a sufficient quantity of salt, and afterwards evaporating the fluid. A little of this extract dissolved with gum arabic in hot water, is said to make capital soup.

Butter.—The *Journal des Connaissances Usuelles* gives an account of the means used in the canton d'Issigny to procure excellent butter in winter. The cows are warmly clothed, so as to cause them to calve in the autumn, as it is found that the milk, after this process of nature at that time, becomes more abundant and richer in quantity; and during the severest weather in the winter, they were constantly kept clothed, and fed in the open air, as the taste of the butter is said to be much injured by confinement in the stable. The butter of this district is superior to any other on the continent.

Country Produce.--Owing to the difficulty of getting produce to the city, hay is now, (the 25th) selling at one dollar and fifty cents a hundred by the waggon load. Wood from $2 25 to $5 75 per load. Charcoal 50 cts. a tub.

[For the New-York Farmer.]

Art. XVII.—Wilson's Ornithology.— *The Cedar Bird.*

When a bird damages or destroys our property, without performing some service in return, he is no more entitled to our protection and regard, than the fox that steals our poultry, or the rat that riots in our granaries—no more than the grub that invades our corn fields, or the caterpillars that strip the leaves from our orchards. I consider it proper to lay down this principle in order to preclude the censures of those whose partialities for the feathered race may be too general; and whose kindness may have arisen more from early impressions, than from a just estimate of the character of the animal.

The bird whose fine plumage is represented above, must be declared *an outlaw;* for so strong are the charges against him, that I have nothing to say in his behalf.* I know not a single good deed of his doing, and have never seen him but when he has been on some predatory expedition. We bear the freedoms of *the robin* with perfect composure when he visits the cherry trees, considering him as taking no more than a very small reward for his services; neither are we disturbed when *the woodpecker* comes half a mile from his nest, takes a cherry in his bill and returns; but the *cedar bird* has no manners but those of a glutton; and standing on the limb, he eats, mangles, or defiles all the cherries that are near him. Neither does he spare the strawberries or early apricots. *To shoot him* is the only remedy that I have found; and this process I recommend to every proprietor whose trees are not very large and productive.

On turning to Wilson, I find some curious particulars, but very little by way of defence or apology for this bird. He says "their usefulness to the farmer may be questioned," and from Wilson, who was no cultivator, and a great advocate for birds, the language is more than equivocal.

The *cedar bird* has been called "*the chatterer of Carolina,*" but rather perversely it would seem, for "notwithstanding the name" says Wilson, "they are perhaps *the most silent species we have*, making only a feeble lisping sound, chiefly as they arise or alight. In the general chorus of the feathered songsters, they can scarcely be said to take a part. *We must therefore rank them far below many more homely and minute warblers*, their neighbors, whom Providence seems to have formed both as allies to protect the property of the husbandman from devouring insects, and as musicians to cheer him while engaged in the labors of the field, with their innocent and delightful melody.

"The gullet of this bird is capable of such distension as often to contain 12 or 15 cedar berries, and serving as a kind of craw to prepare them for digestion. No wonder then that *this gluttonous bird*, with such a mass of food almost continually in his throat, should want both the inclination and the powers of vocal melody, which would seem to belong to those only of less gross and voracious habits."

Wilson again refers to "the remarkable muteness of the species. The season of love which makes almost every small bird musical, has no such effect on them, for they continue at that interesting period as silent as before."

The cedar bird is so decidedly *fructivorous* that, differing from almost every other species, the season of incubation is deferred till after he has fattened on summer fruits; yet "the young are at first fed on insects and their larvæ, but as they advance in growth, on berries of various kinds."

"In May, before the cherries are ripe, they are lean; and little else is found in their stomach, but a few shrivelled cedar berries, and a few fragments of *beetles and other insects, which do not appear to be their common food;* but in June, while *cherries* and *strawberries* abound, they become extremely fat."

"At pleasure the cedar bird can lower and contract its crest so closely to its head and neck, as not to be observed. Six or seven, and sometimes the whole nine secondary feathers of the wings, are ornamented at the tips with small, red, oblong appendages, *resembling red sealing wax.* These appear to be a prolongation of the shafts, and to be intended for preserving the ends of the quills from being broken and worn away by the almost continual fluttering of the bird among thick branches of the cedar. The feathers of those birds which are without those appendages are uniformly found ragged on the edges, but smooth and perfect on the others." D. T.

P.S. Bewick in his General History of European Birds, describes another species of this Genus *(Ampelis)* of nearly twice the cubic volume of ours, differing also in the markings of the feathers; but we find a curious agreement in organization and in habits. He says "the secondaries are tipped with white, each being pointed with a *flat horny substance of a bright vermillion color;* and afterwards he refers to "*the little red waxen appendages.*"

"*The general food of this bird is berries* of various kinds; and in some countries it is said to be extremely fond of grapes. One which we saw in a state of captivity was fed chiefly on hawthorn berries; but from the difficulty of providing it with a sufficient supply of its natural food, it soon died. Only this species of the chatterer is found in Europe." D. T.

[The Cedar Bird is very common on Long Island, and very destructive to cherries, often robbing the trees entirely, unless either constantly frighten away, or shot.—*Ed.*

* It since appears from Wilson that he destroys a few insects.

[I have made the following selection from an address delivered before our Society, as worthy a place in the New-York Farmer. D.

ART. XVIII.—*Extract from an Address delivered before the Domestic Horticultural Society of the Western part of New-York, at its Annual Meeting in Geneva, Sept. 28th*, 1830. By Z. BARTON STOUT.

Gentlemen of the Society—The progress made, during the two years of the existence of the Domestic Horticultural Society of the Western part of New-York, has been gratifying and encouraging.

The autumnal exhibition at Lyons, a year ago, of fruits, flowers, and culinary vegetables, was such as might have competed successfully, with the supplies of the best markets of our oldest cities. The recent summer exhibition at Canandaigua, though the early season had been particularly unfavorable, afforded an exulting proof of the triumph of horticultural taste and skill. And the various and excellent collection of the "kindly fruits of the earth," brought together to-day, shows, that zeal in the cause has not diminished, nor industry relaxed.

May we not therefore conclude, that we are bid to "go on and prosper;" that the laudable objects had in view in the formation of this society, are likely to be realized; and that western New-York is becoming, by improvement, what it was evidently designed to be, by nature, and what we have often heard it called, one of the garden spots of the nation. Our young association has already been honored with the friendly correspondence of a number of the most distinguished botanists and horticulturists of the United States. Several of our members cultivate gardens, which, for the variety and excellence of their products, would be highly creditable to older countries. It will not be deemed indelicate, now that our respected President is absent with his family in Europe, to recall to your recollection, that while this country was scarcely reclaimed from its wilderness state, he was distinguished for his taste in horticulture, as he has ever been for the amiable courtesies of social life. Altogether then, our Society has been commenced under favorable auspices, has already been rewarded with flattering encouragements, and has obtained successes, that should stimulate the members to untiring future exertion.

* * * * * *

The neighborhood of Philadelphia may boast of a number of beautiful gardens, equal to any in the United States. Landreth's and Bartram's are of the kind and for the purposes I have been recommending.

The Woodlands and Lemon Hill are private establishments, on the most tasteful and munificent scale. The latter of these, once the country-seat of the celebrated Robert Morris, now better known by the appellation of Pratt's garden, contains a most extensive collection, indigenous and exotic, which is freely submitted, by the liberal proprietor, to the examination, the study, and the enjoyment of all respectable visiters. And crowds avail themselves of this liberality, enjoying its beauties with intense delight,

> "Along the blushing borders, bright with dew,
> And in the mingled wilderness of flowers."

Bartram's, above mentioned, is perhaps the very oldest botanic garden in the United States. It is situated on the right bank of the Schuylkill, a few miles below the city, and was begun more than a hundred years ago, by John Bartram the elder. He was early encouraged in his enterprise by scientific gentlemen in England, members of the Royal Society, and others; and his garden was the nursery, whence were distributed over the Old World, the peculiar vegetables of the New. Bartram, the son, known to the readers of the last generation by his travels in Florida and Georgia, continued through a long life, terminated but a few years ago, to cultivate and improve the garden. His eyes, though dimmed with the lapse of more than four score years, brightened as he once pointed out to me a stately elm, which, when a small sapling, and he a little boy, he had held for his father to plant. It had attained the size of a forest tree. He was taking the last steps of the downhill of life. This garden has long been the improving resort of the professors and students of botany, and materia medica.—Though not so highly and expensively embellished as Pratt's garden, having more of the wildness of nature, it is a charming resort; and the visiter of taste will scarcely wonder, that the enthusiastic and amiable Wilson, the ornithologist, expressed the wish that his remains might repose under the spreading branches of Bartram's garden. As if the wild music of the birds, rioting amidst the foliage, which had so often lent a charm to his life, could also

> "Soothe the dull, cold ear of death."

* * * * *

The attention of horticulturists in the United States is at this time generally, and very properly, directed to inquiries in relation to the culture of the vine. The opinion is gaining ground, that our soil and climate are well adapted to various kinds of wine-yielding grapes. The successful experiments of many, among whom I may particularize Col. Carr, of Bartram's garden, and Major Adlum, of the Vineyard near Georgetown, have proved that good and wholesome wines may be made from several kinds of our native, and long neglected grapes.

The salutary effects of the weight of public opinion in the cause of temperance, within a few years, have been witnessed with satisfaction by all. All therefore will be gratified if there be a reasonable prospect that ours may become a wine-producing country; for the people of almost every nation famous for this product, have been comparatively temperate.

* * * * *

And among the other valuable and ornamental products, that this Horticultural Society may be the means of introducing and diffusing through the country, we trust it may ere long be said,

> "The vine too, here, her curling tendrils shoots;
> Hangs out her clusters, glowing to the south,
> And scarcely wishes for a warmer sky."

We dare hope that some future voyager upon the Susquehanna, the Hudson, or the Genesee, may sing of the culture of their banks, as sung the inimitable Childe Harold of

> "——— the wide and winding Rhine,
> Whose breast of waters broadly swells
> Between the banks, that bear the vine,
> And hills all rich with blossomed trees,
> And fields which promise corn and wine,
> And scattered cities crowning these,
> Whose far white walls around them shine.
>
> The river nobly foams and flows,
> The charm of this enchanted ground,
> And all its thousand turns disclose
> Some fresher beauty varying round.

The picturesque lakes of this region already show many spots where the advantages of nature and the embellishments of art, combine to produce scenes of surpassing beauty. Here on the shore of the Seneca, the eye is regaled with terrace gardens, rich in fruits, flowers and verdure, springing beautifully up, from the very bosom of the waters.

As the topics of the three able addresses, that have already been delivered before this Society, are yet fresh in the recollection of all of us—the two first by members not only well acquainted with the theory of their subject, but both eminently successful as practical horticulturists; and the last by a young gentleman, to whom it has evidently been not less a pleasure than a duty to become a proficient in botanical science, and whose recommendations to the society were as judicious as they were happily conveyed—little is left me at this time to obtrude upon your notice.

* * * * *

Rural pursuits have ever been the recreation and the solace of the wisest and the best of men. A long catalogue of distinguished names, ancient and modern, who have delighted in the improvement and culture of their fields and gardens, could be presented to you, but time is denied us.

He, who lived and died "first in the hearts of his countrymen," sought, after having contributed largely to the happiness of his country and of mankind, quiet enjoyment amid the shades of Mount Vernon; and those of us, who have made the pilgrimage to that consecrated spot, have seen the yet living and fruitful proofs that he, whose great employment had been obtaining freedom for an empire, could also appreciate the pure pleasures of superintending his fields and his gardens. The late highly respected Judge Peters, of Belmont, on the Schuylkill, used to show in his garden a fine well grown chesnut tree, which sprung from a nut, planted by Washington, on the occasion of his last visit to that distinguished agriculturist. The Sage of Monticello, whose name will be the watch-word of liberty, wherever oppressed man shall dare to declare himself free, took much pleasure in the cultivation of his grounds, as often as the claims of his country would permit his retirement to his classic retreat. And the venerated father and draughtsman of our incomparable national constitution, is passing the evening of his useful and illustrious life, in the rural avocations of his own Montpelier.

There is yet another bright examplar of blended horticultural taste and political greatness—the apostle of liberty of two worlds—the defender of man's dearest rights, during two generations of men. His aged brows, entwined with unfading wreaths, placed there by benefitted and grateful millions, he is yet once more called from under his own "vine and fig tree" at La Grange, to assist in the downfall of a tyrant, and the re-establishment of the violated liberties of his country. American liberty he had aided to achieve, half a century ago; and, most enviable life and career!—he is spared to see tyranny hide its diminished head in his native land, and the glories of civil and religious freedom dawning in radiant promise upon his own beautiful France.

[Although we have frequently brought the subject of Laboring Schools before our readers, still we deem its importance to be of the highest consideration for the welfare and prosperity of our country.]

ART. XIX.—*The Union of Labor and Study.*

We have already adverted to this subject, and now return to it again, for the purpose of laying before those who are most concerned in such a discussion, the results of experience in those institutions, where the manual labor plan has been associated with study. Facts always form the safest guide.

The provision requisite to a manual labor academy.—The Southern and Western Theological Seminary at Maryville, Tenn., was begun by the purchase of a farm at $2,500. The horses, cattle, wagon, and farming utensils cost about a thousand dollars more. There is a boarding house where all the scholars upon charity are fed, and lodged.

At Danville, Ky., is a manual labor Seminary. The farm consists of 112 acres of first rate land, the necessary buildings are put up with logs, and are sufficient to accommodate 40 or 50 persons. The whole expense of the farm and the buildings was $3000.

At Germantown, near Philadelphia, is another Academy for the union of labor and study. The farm here has 72 acres, with the ordinary farming utensils, two horses, four cows, and other domestic animals, supplying out-door employment for more than a dozen students, and shop room for 6 or 7 more. The buildings will accommodate about 40 students. The property cost $8000.

At Andover, Mass., is a department for manual labor and study. A workshop is erected here, of rough stone, 65 feet by 40, capable of containing 75 laborers. The cost was about $3000.

The Episcopal church in Pennsylvania have lately purchased a farm of 80 acres in the state of Delaware, and near the river. They estimate the requisite amount for the purchase of the land, repairs of buildings, and stock, at $6000. They calculate *four hours* each day for every student to work, and *six or more* for study.

Expenses.—At Maryville the annual expense of each student for board, over and above his labor, which is only one day in the week, is $25.

At Danville, where they all labor two hours daily, the expense of board is reduced to one half the regular charge, when labor is not required.

At Germantown the labor in many cases is equivalent to the whole expense of board. In this place the students labor *four hours* every day, Sundays always excepted.

At the proposed Episcopal Institution in Delaware, it is intended that the daily labor shall about equal the expense of board; or in other words, that the steward or superintendant who takes the farm, shall, in general, accept the labour of each student for *four hours* each working day, as sufficient pay for the board of each student.

The diet in each of the places named, is generally plain, consisting of meat and bread, vegetables, milk and fruit, but no tea and coffee.

The kinds of labor.—At Maryville, farming only is used.

At Danville also, the labor is wholly agricultural.

At Germantown, are various kinds of joiner work, especially of the plainer kind; horticulture and agriculture, together with the management of horses and cattle.

Studies.—It is the concurrent testimony of all the above named institutions, that the studies of the students are in no wise impeded by their manual labor. The opinion is strongly held, that their attainments are in every respect equal to those who devote their whole time to study.

Condition of admission.—In most of the Seminaries now reviewed, the performance of labor is an indispensable condition to membership.

Remarks.—It will be seen by the preceding articles, that no doubt can exist as to the practicability of the plan of uniting labor and study. The project, indeed, does not derive its feasibility from mere recent experience. Some of the best scholars, and most useful men in our country, have passed through this hardy course of mental training. Their education has been prosecuted amid the interruptions incident to laborious avocations. Their hands, hardened with severe toil, and accustomed to the rougher implements of agriculture, have not been deemed unfit to turn over the volumes of science, and form the figure 5 of mathematical calculation. Of how many intelligent men do we learn the simple fact, that they are self-taught? In almost every such case there has been a union of labor and study. Labor has made the study sweet, and study has, in its turn, softened labor.

The above article is from our respected contemporary "the Columbian Star."—If additional facts and arguments are required to enforce the propriety, and indeed absolute necessity of labor, call it by what term you choose, gymnastic, agricultural or mechanical, and perhaps each in turn ought to be had recourse to by students, it would be sufficient to refer to the experience of Pestalozzi, and above all of Fellenberg in his celebrated establishment at Hofwyl.—Ample and very satisfactory details on this engrossing subject will be found on reference to the American Journal of Education. We are satisfied, by intimate experience, and we may say personal suffering, that sad injustice is done to human nature in the common systems of education, by a neglect of suitable and regular physical exercise; directed as well to the immediate preservation of health and prevention of numerous ailments, as to the learning of some useful handicraft employment, and acquiring the ability to use our senses and limbs with that readiness and accuracy so useful in the various situations of life, whether of daily business or unforeseen peril and emergencies.—*Journal of Health.*

[For the New-York Farmer.]

ART. XX.—*Engrafting Grape Vines.* Letters from JOHN HOWLAND, Jr. and HORATIO GATES SPAFFORD.

New Bedford, 1st mo. 1831.

Having seen in the "Farmer" a communication from thee, to the editor of the Troy Sentinel, upon the subject of *engrafting Grape Vines*, I have taken the liberty of asking thee to answer a few questions on that subject; believing the method stated by thee, to be superior to any one which I have yet seen described; and being also satisfied from the attempts which I, with others, have made in this place, to cultivate the foreign varieties of that delicious fruit, that it can only be successfully accomplished by engrafting it upon the roots of our native grapes, I consider it of importance to be in possession of information that will render the grafting of vines as easy as that of trees.—As the attempts that I have hetetofore made, of doing it in the usual method of cleft grafting, has only succeeded in a few instances.

Is the hole to be bored in the stock to be large enough to take the scion with the bark on? or, is the bark to be taken off? And, as it is seldom that a vine grows entirely round, would it not be best to have the hole the size of the scion, the smallest way, and then cut the other two sides so as to make it round?

Is it best to insert the scion before the sap begins to flow, or to wait until it has commenced? Ought the scion to be cut in the fall, and be kept in a box of sand, or earth, in the cellar? or cut in the spring?—And is it important to have two years old wood to insert?

As I take great interest in horticultural pursuits, thy attention in answering the above questions will much oblige me, and also, by giving any other information in thy possession on the subject.

I got a friend of mine, about eight years ago, who was personally acquainted with the American Consul at Lisbon, to write to him to send out a parcel of grape vines of the most approved kinds, cultivated there. They bore well for two or three years, after which, they began to fail, and generally left off bearing, which I am induced to believe was owing to something in our sub-soil, which, as soon as the roots penetrated, appeared to effect them. Hence, I am induced to believe, that the only successful method of cultivating them is by engrafting.

I am respectfully thy friend,

JOHN HOWLAND, Jun.

Lansingburgh, (N. Y.) Jan. 26, 1831.

SIR—Every thing that indicates zeal and perseverance, in relation to culture, whether of vegetables or animals, or minds, and especially if connected with good sense, readily commands my attention.

I have but a very faint recollection of the article to which you allude; but presume it was a description of the mode of *engrafting the vine;* the only one that I have ever known to prove successful, which was practised by my late friend Dufour, of the Swiss vineyard, Vevay, Indiana. I have his book, which I wish I could send you.

I saw off the stock root under ground. Bore a round hole into the end, large enough to admit a round piece of the scion, into which insert it, cover with mellow earth, having the upper bud of the graft, or scion, open to the air. I cut my grafts at any time when the leaves are off, and the sap quiescent, and engraft so.

In the vine the air and sap vessels pervade the whole, wood and bark; it is therefore not necessary that wood should meet wood, and bark bark as in trees. Bear this in mind. In a stock-root of 1 or 1½ inch in diameter, I put in two or three grafts, *one* in the *pith*, and mind, having on it wood of two years growth, one and two years old. If this takes I destroy the others, and from this *never fail to get fruit the first year.* Cut the wood smooth with a sharp tool. Insert a round stem, and if with a shoulder, thus:—Graft: Stock root. The better, without a shoulder, it makes the connection

the stronger. Set the shoulder out on the head of the stock, thus :— I do not know that I ever have failed to make a graft take, though many others have. I use great care, however, and in that the subsoil, if not good enough for a soil, should be farmed, and 5 or 6 feet in depth, always willing to take pains for a good thing, which most men are not, *you* must be.

You have, if I rightly remember, a hard-pan sub-soil, about New-Bedford, or rather a substratum, no subsoil. Fill up an old cellar, if such you have on your farm, with the rubish of the chimneys, old walls and some heaps of your hard pan, (if it has long lain exposed to the action of the weather,) some top earth your soil, intermixed with a few bushels of refuse lime, in barrels, and in this plant Grape vines. After a few years, the vigor of growth, with fruit, will tell you how to raise vines. If you have no old cellar to fill up, dig one, say 5 or 6 feet deep, a circle of 10 feet diameter, and fill up as above, and plant in it. Every fibre, of any sort of vine, must have air, as well as moisture, or it dies.

I have seen in your region, deep ditches, for drainage, as well as to hide your surplus of stones, filled up with stones, except a covering of earth. The hardy vines, such as the purple Hamburgh, the Isabella, &c., would do well, planted on these ditches. Rather I should say, I should think they would.

Should you have opportunity, by a friend coming this way, send for Dufour. I have 30 odd varieties of the vine, which I should like to shew you, growing in my garden. Having tried the foreign vines, I prefer Native, as more hardy, because at home in our climate and they give me more fruit, quite good enough for me.* You would say so too.

Have not seen your New-England Farmer, send me 1 No. If you come this way, shall be glad to see you.

Very respectfully,

Your obedient servant.

HORATIO GATES SPAFFORD.

John Howland, jr. Esq.
New-Bedford.

*Have one kind, a large bloom, or flesh color, decidedly superior in my opinion to any other I ever saw. Foreigners from France, Italy and Spain call it the Bloom '*Muscade Raisin Grape*,' but they do not know it is a native of America. It makes the best of Raisins.

ART. XXI.—*Salt Hay.*

MR. EDITOR—In answer to your Salt Hay correspondent from Duxbury, in the last New-England Farmer, I would say, that some years since, I purchased a farm in the vicinity of Boston, having about 50 acres of Salt Marsh full of salt ponds, the Marsh yielding about 33 tons of hay mixed thatch, creek stuff or coarse sedge. At a small expense it was drained with ditches 3 feet deep, 5 inches wide, and 2 rods asunder; this destroyed the salt ponds, killed out the coarse grass, and brought in Goose and Fox grass, and increased the produce to nearly 100 tons. The Goose grass is usually cut in June, and the Fox grass in July and August in good weather, raked and cocked the third day after mowing, when it looks quite green, and is kept in cock four or five days, if the weather and tides will permit; then it is stacked, or put under cover; (it is best to put it under cover if possible,) I use it in preference to English hay for milch cows, working oxen, and horses, and sell my English hay. My young cattle and sheep are kept on the poorest of it. 100 full blooded Saxony and Merino sheep were kept on that alone the last winter without English Hay or grain; they fed from the stack when they pleased, and were not under cover during the winter, and were in better case in the spring than sheep usually are, or mine had ever been.

In 1827, I used a pair of oxen in doing the spring's work, and in getting in hay and harvesting; at housing time I put them to fatting on my best salt hay and unwashed potatoes, giving them not a drop of water or liquid of any kind. They were slaughtered about the last of December, weighed 2236 lbs. and were sold at $5,12½ per cwt. making $114,59.

I prefer my best salt hay to my best English. It brings more in the market when sold for truck or stage horses, or for cows or horses kept for private use. It has been bought by stage owners and sent to Billerica, they giving the highest price that had been given for the best of English hay. It is thought to strengthen and enrich the manure more than English or fresh meadow hay.

When salt marsh or fresh meadow is attached to a farm, it enriches the farm; these want no manure, and they help to manure the upland. If there are the same number of acres of marsh that there are of upland, more than double the quantity of stock can be kept, which will more than double the manure, all of which will be for the benefit of the upland. Fine salt grass well cured, makes cows in the winter and spring yield milk copiously, and of the best flavor; but if it has been wet, is musty, or of a coarse kind, it imparts a very disagreeable taste to the milk.

The first salt hay ever used in this part of the country was given to an old bull that the owner did not care whether he lived or died. When grass came he was very fat, while the other cattle were in a very indifferent condition. Between fifty and one hundred years since, many hundreds of acres of salt marsh in this place have been diked and converted into English mowing, but within the last twenty or thirty years, the dikes have been cut away, and the salt water let in again in consequence of salt marsh being so much the more valuable.

It requires as *good weather*, and as *much attention*, to make salt hay well, as it does to make English hay well. The poorest salt grass, properly made, is preferable to the best river fresh meadow hay, whether horsemint or jointed grass (to say nothing of polypod or mount royal). I have been a resident in the Old Colony for more than 24 years. I am well acquainted with their *manner*, I should have liked to have said *method* of farming. Yours, &c.

N. E. Farmer. VICINUS.

[For the New-York Farmer.]

ART. XXII.—*Remarks on the Cheese, reported to be noxious or poisonous.*—By SAMUEL L. MITCHILL, *in a communication to the editor, dated January 24th*, 1831.

From time to time cheese is brought to market, which has a very disagreeable operation, when eaten, on the human stomach and intestines. Vomiting and

purging are the leading symptoms. These are sometimes so violent as to induce, in many minds, a belief that the article contains something directly deleterious or venomous. A few years ago a cheese was sold at retail by a grocer; and the effects on some of the persons who ate it were so serious, that a complaint was made at the police office for a legal investigation. I remember to have been requested to assist in the inquiry. But neither wickedness nor mischief was discovered.

Very lately a dealer in my neighborhood purchased in the course of his business, a cheese of a similar quality. It made a number of his customers sick; so that the neighborhood was alarmed. A considerable piece was brought to me for an opinion. It was eaten by five members of my family, two of whom were affected by puking, and one of the two by severe purging; myself and two others escaped. It looked well, smelled well, and tasted well. There was nothing forbiding or suspicious in its external appearance. It was a solitary cheese of a dairy, which contained no other of a like constitution.

Milk, from which cheese is prepared, is considered by domestic economists, as composed of three principal ingredients, to wit:—1. of the *butyraceous matter*, or *cream*;—2. the *mucilaginous matter*, or *cheese*;—and 3. the *serosity*, or *whey*.

Every substance that contains a well characterized and developed acid, is capable of curdling milk, but not all to the same agreeable degree. Besides the white and yellow galiums, the flowers of thistles (cardons) cultivated and wild, artichokes, and as is affirmed, all plants with artichoke-heads, produce the same effect. So do vinegar, cream of tartar, and several other substances. The mineral acids are considered unsafe.

The animal kingdom furnishes vast supplies for curdling. They are contained in the stomachs of calves, lambs, and kids, before they have taken any other food than the milk of their dams. These are called *Rennets*, and may be kept for years. The fourth or last stomach of calves contains an acid and curdled milk. The saying is, the longer it is kept, the better; because it sours with age, or in other words, becomes more acid. Cheese, when overdosed with rennet, turns aliment sour, when taken into the stomach; and this acid is frequently hot and disagreeable.

It is observed that all cheese of the cow, sheep, and goat, provided they are eaten in small quantity, mostly aid and strengthen digestion.

A number of similar instances of noxious cheese, has been noticed during the season in the newspapers.

There is something in this occurrence which I have not as yet explained to my satisfaction. The unhealthy operation of one cheese in a dairy, while there is nothing injurious in the rest, is, so far, a mystery to me. And it is equally difficult to understand how certain persons eating parts of the same cheese should be made sick, while others entirely escape. I wish some of your correspondents, our rural economists and medical inquirers, would turn their attention to the subject, and afford the public a rational solution.

Yours, with sentiments of esteem and regard,

SAMUEL L. MITCHILL.

Remarks. Dr. M. sent us a piece of the cheese; but not being fond of internal commotion, we gave it to grimalkin, who exhibited no other emotions than gratitude for a condiment to his supper.—*Ed.*

ART. XXIII.—*On the use of Leaves as a Manure.* By R. K. MEADE.

The great importance of leaves as a manure has frequently been alluded to in the Farmer, but never recommended in such a manner as to furnish serious ground for a calculating and practical farmer to go to work—the nearest approach by a New England farmer in collecting them for the barn-yard, was by throwing them into a tent and thence into a wagon—a plan so far removed from efficiency as to damp the enterprise of nine out of ten who would attempt it. I have been successfully engaged in converting them into manure for several years past, under the feet of horses, cattle, sheep, and hogs, and find the following prominent reasons preceding others for their use, and for the attempt to promulgate this essay.

1st. A belief that there is a general neglect of the use of leaves as a material for manure.

2d. The almost universal use which might be made of them.

3d. Their importance as a material to keep up a system of operations for a seasonable supply of manure.

4th. The salutary influence in affording a comfortable bed for all kinds of stock, particularly for hogs; freeing them from the mange—and their valuable substitution when straw is scarce for ice-houses, &c.

5th. The importance of their removal from the fence corners in case of fire, and to preserve the rails from rotting.

6th. Their qualities are as a material for manure, as tested by experience in its application generally, but particularly in its adaptation to the wheat crop in spreading it broadcast on the rough fallow, and harrowing it in before seeding, &c. Some object to the use of leaves from the fear of injuring the forests—it will be proper to shew why there is no reason for such apprehension. If the scripture truth with regard to the falling of the tree was verified in relation to the leaf, there might be an argument urged in their removal, that Peter was robbed to pay Paul—but it is certainly not the case—the tree lies where it falls, but the leaf is driven by the most prevalent winds into some deep valley, the lee side of declivities, or into the corners of a fence where they moulder into dust, rendering no service to man or beast, and benefitting only a portion of soil which may never be called into cultivation—but the habit of permitting leaves to bank up against fences is highly injurious to them, evidently producing premature decay. If by any prudent forethought or arrangement the leaves could be detained just where they fall, which may in some degree be done by an attention to the clearing of a plantation in reference to its altitude and exposure to the most prevalent winds, their removal would never be recommended, because it is rational to conclude that the forest requires a return of its foliage, however abundant, to keep up a supply of food for its powerful growth and absorption, and detain with greater security the moisture so much to be valued in our dry climates and waving lands; but it is enough for us to know here, the undoubted fact, that millions of tons

of leaves are annually deposited in some place and lost to all intents and purposes for the want of either a proper knowledge of their useful application, or the skill and industry to haul them to the farm-pen. Our reason and observation would be given us in vain, our 'talent' would be hidden in the earth, if the neglect of some of the most apparent opportunities of employing the resources of nature to advantage were permitted.

The process of supplying the farm yard with leaves is as follows: After designating the ground always a prudent distance from the roots of trees, which might possibly be injured by their removal, rake them up into winrows from eight to ten feet wide, then with some kind of plough, cultivator or harrow, scarify the earth on each side lightly, the width of the leaf-bed; with the back of a hand-rake shove the loose earth to the leaves, and with shovels cover them an inch or so deep. This operation should be performed when the leaves are wet and the earth light and loose. This preparation should be made in the spring months to an extent of the probable demands of the farm-pen for the season before you, but may be done at any time most convenient for the farmer if the leaves are not too dry. The importance of having a sufficient supply of leaves ahead, is, that when thus prepared they may be transported at any time whether wet or dry to the farm yard, which should be done at periods of from four to six weeks apart, and spread about six inches deep, as uniformly as possible to receive the animal manure—double this thickness will not be too much for an early winter preparation mingled with straw and cornstalks—in the spring the leaves will be incorporated with the great mass of manure. The process of hauling them to the farm-pen is important to be considered, as many have laughed at the idea, saying you might as well attempt to haul feathers in an open cart; and it is not much to be wondered at, under the different plans and systems attempted.—Large ox carts discharging their loads by a tilt, or one horse carts, are by far the most expeditious mode of conveyance, with very high sideboards, &c. four pronged forks, with the teeth slightly curved and flatted, composing a frame about two feet square, are used to lift the leaves, and will raise as many as a man can conveniently heave into the cart, weighted as they are with the adjoining soil, and kept continually wet or damp, by the covering of the earth;—four hands are employed to a large ox cart, two with forks, one with a rake to keep the leaves and earth neatly pushed up, the fourth in the cart to receive and tread them firmly down. One ton, more or less in proportion to the quantity of earth mixed with the leaves, and their weight by reason of the season, may be carried at each load in an ox cart or wagon to the farm-yard—the speed with which this loading is done, and consequent filling up of the farm pen is truly encouraging to one who looks to the improvement of his soil, through a generous and regular system of manuring. As an evidence that I have given this mode of increasing the manure bank a sufficient trial, permit me to say that I have in the course of a year used more than one hundred loads. But once for all, let it be kept in mind, that in the pursuit of this system of increasing the stock of manure, no risk should be run, detrimental to the forest,—for all its alluring advantages, one of which has appeared very conspicuously in the last autumn, and although it is a fact which theory of some will combat, it nevertheless stands as an evident confirmation of its truth. Six or seven acres of land were covered with 130 ox cart loads of this leaf manure, and a fraction less than seven gallons of wheat sowed per acre—it appears to be abundantly thick, and by comparison with experiments made last year, no doubt will prove so in time of harvest—on the same ground, without the aid of this well pulverized manure, ten or twelve gallons of wheat per acre would have been required to have produced the same verdure and apparent thickness; and as to its ultimate production there is no doubt of the great superiority of the thin sowing and manuring. There is then a saving of from three to five gallons of wheat per acre in consequence of the manuring.

But it will be urged by many an industrious farmer, that there is not time to collect the materials for this additional stock of manure, and haul it out in proper place, cultivating at the same time the usual quantity of land. If this really be the case, unhesitatingly let it be recommended that a few acres be detained in grass, in order to afford opportunity for the important work of manuring. At this time of day it would appear superfluous to recommend or exhort our farmers to the accumulation or application of manure, since the practice of ages, and our every day experience tells us it is indispensable; but to investigate the value, and recommend the more liberal use of a much neglected material amongst the varieties presented to our choice, can scarcely be doubted as important to the improving condition of the farmer. A brief hint of another mode of using leaves may be important to some—carry them immediately on your knoles to cow-pen, and from ten to twenty loads per acre—double the ground may be gone over in the season, and more effectually manured, as half the period will suffice to keep the pen in one place—the leaves preserve their moisture, and save much of the manure from exhalation. It may be well, Mr. Editor, now to come to a close—your patience and my pursuits should be considered, though a two feet snow permits the farmer to do but little more than feed the stock and sled a little wood. But be assured that if this leaf subject were done justice to, supported by numberless remarks connected with it, too long for one essay, the practice and science of manuring might be benefited beyond ordinary calculation, and far beyond any feeble attempt of your friend and humble servant.—*Amer. Farmer.*

ART. XXIV.—*On the visible Cause and easy and effectual Cure of the bad setting of some sorts of Grapes.* By Mr. JAMES CRAIG, Gardener to G. Cholmely, Esq., Howsham, York.

SIR—I dare say it is well known to you that a great many of those vines which "have blossomed but brought no fruit" have been hewn down as cumberers of the ground, and probably many more have been condemned before they were fairly tried; and if such there are, I trust that what I am about to state will be the means of saving them from the fatal axe. I have at this place a vine under my care, which is a very bad setter; it is an old plant, growing in a double-pitted pine stove. Previously to my coming here it had been condemned for an apparently good reason, which was, that it never had brought to perfection more than

about a dozen berries on a bunch; the residue were about the size of peas. I was informed of its faults, but nevertheless respited it, and have been amply rewarded for my clemency. It ripened last year, a very fine crop, the bunches from 1 lb. to 3 lbs. well filled with berries, considerably larger than those of the white Tokay. I am not certain of its name as I never saw the sort before; nor could any gentleman or gardener who saw it tell me what it was; but three good practical gardeners, to whom I sent single berries, informed me it was the Palestine. Be it what it may, it is an excellent grape, of good flavor, and one of the best of keepers: the fruit was ripe in July, and I cut the last bunch in Christmas week. The berries are of a dark red color, and of an oval form.

I presume that the following observations and treatment of this vine will be equally applicable to many other bad-setting sorts:—

On close inspection, when the blossoms are fully expanded, it will be obvious to every observer who is acquainted with the parts of the fructification, that the main cause of their abortiveness is a defect in the filament, and not in the anther, as supposed by many. It will be found that the filaments were very small and recurved, so as to render it almost impossible for the anthers to come in contact with the stigma of the same blossom, and I am persuaded there is a sufficient quantity of pollen on the anther for the fecundation of the stigma; but so awkwardly is the anther situated, that in a very few instances can the pollen perform its functions on the stigma without the assistance of art. The evil may certainly be remedied in a great measure by suspending over its racemes those of any free-setting sort, when the flowers of both are fully open; or by intermixing with its branches the branches of any free-setting sort that may be expected to flower at the same time: but in many cases neither of these methods would be convenient, nor do I consider them at all necessary.

About half of the bunches I impregnated with the pollen taken from the bunches of other sorts in flower at the same time, collected with a soft camel hair pencil, in the following manner:—I took a sheet of white paper, and held it under the branches from which I intended to gather the pollen (selecting those which were fullest in flower), and then applied the pencil gently to various parts of them; and when the pencil was charged with yellow powder, I took it to the bunches which I wished to fecundate, and touched lightly with the pencil the female parts of the flowers, holding the paper as when gathering the pollen; and what dust fell into the paper I took up in the pencil, and applied it as before. These did as well as I could wish. All that remained, (except two bunches) I impregnated with their own pollen, by working the pencil carefully among the flowers, and by that means dispersing part of the fecundating dust, and collecting part of it upon the pencil. Of course, by this process, the pencil comes as often in contact with the female as with the male part of the flower; consequently, the fecundation is accomplished by the pollen which is already on the pencil adhering to the stigma while more is collected. By the first of those methods I had rather more berries set than I had by the latter; but I had a great many berries to thin out of all the bunches, except the two which I left unassisted, and which set their berries in the usual way, almost all of them about the size of peas, and without seed. I kept as dry an atmosphere as I conveniently could, from 65 to 82 degrees of heat, in order to absorb a superfluous moisture which collected on the stigma. The operation was generally performed about noon, when the bunches were dry. It is necessary that the operation should be performed every day while the trees are in flower (which will be about a week), as some parts of the bunches are only in flower when the others are set.—*London Mag.*

Remarks. Farmers should take the hint from the above, and endeavor to make a barren door-yard tree more productive.—*Ed.*

ART. XXV.—*On keeping Fruits, more particularly Apples.* By JOHN FERME, Esq.

In my small experience, one thing has occurred to me, which I rather think, is frequently lost sight of by many persons who have, like myself, but a small quantity of fruit, and but indifferent accommodation for its preservation, viz. that the cause of *shrivelling*, the most common way in which apples and pears decay, is not so often from the fruit being gathered in an immature state (a mistake which few persons will twice fall into), but from the too dry state of the air of the place where they are deposited, and the position in which they are placed, allowing such dry air to operate too freely on them.

When fruit, however mature and finely ripened, is exposed to a dry apartment, and laid singly on open sparred shelves (as is often practised), the action of the air speedily extracts the juice from them, and in the months of November and December, Ribstons, Nonpareils, and other fine apples, and the kinds of pears, which should remain in good condition for several months after, become shrivelled, and in the pulp, stringy, unpalatable, and undigestible. Packing in jars closely cemented or sealed up I have found to prevent this, where it is unavoidable to deposit fruit in a dry apartment; but such state of atmosphere as is rather moist, without the place itself being absolutely damp or wet, I conceive to be most favorable for the fruit retaining its original freshness in: and as many persons have cellars at the surface of the ground or a little below it, who have no regular fruit rooms, my experience would induce me to advise them to store their fruit in a corner of the former, in preference to dry presses and closets in higher flats of the house. As an example of what I am advising, I may mention that a lady of my acquaintance whose garden produced annually a considerable quantity of fine Ribstons and Nonpareils, has been anxious for several years to preserve them till spring, and last year complained to me that, with all her care and attention she was unable to effect it, as the fruit invariably shrivelled before the end of the year. On inspecting the place where it was kept, I found it a dry closet on the second floor of the house. I advised her this year to deposit them in the cellar, which is several feet under the surface; and I was agreeably surprised, some days ago to be shown specimens of Ribstons and Nonpareils preserved in both places; those from the closet shrivelled and skinny; those from the cellar as fresh as when pulled from the tree.

I know not if these unconnected observations may be worthy a place in your pages, but from the apple

and pear being (as you justly observe in your last number) the food of the middling and poor classes, and more generally useful than any other, I hope at all events, you will call the attention of your correspondents to the subject.—*Gar. Mag.*

[For the New York Farmer.]

ART. XXVI.—*An Economical Method of raising Early Potatoes.*

In the month of February and the first part of March, let the potatoes intended for family use be pared somewhat deeper than usual—Save the parings by spreading them on the cellar floor, or any other place where they will not freeze or dry up. About the 20th of March prepare a hot or forcing bed in the ordinary way with fresh stable manure. Spread over the manure an inch or two of sand, or light earth; then lay your potato parings with the skin up close to each other, so that the whole forcing bed may be covered, and cover the parings with light earth two inches deep. Water the bed frequently, and protect it from the frost by covering with matts or straw when necessary, and let it be exposed to the sun and air in moderate weather. When the plants are two or three inches high, transplant them into rows or drills two and a half feet apart, and ten inches from each other in the drill, and you will have potatoes earlier and of a larger size than in any other way. The time of preparing the hot bed and of setting out the plants will vary according to the time when the last frosts are expected, and according to the care taken to protect the plants after they are set out.

The writer of the above has made the experiment three years in succession with uniformly pleasing results. The potatoes were what are called in Pennsylvania, Mercer or Neshanock; any other early kind may answer as well. The same kind of potatoes were planted at the time the parings were placed in the forcing bed, in the ordinary way by cutting and whole, and those from the parings were earlier and larger than those raised in the common way. From experience he is satisfied that it is useless if not injurious to plant more of the old potato than is sufficient to cause the bud to germinate.

The greater part of the potato usually planted may thus be saved and used for the cattle. It is nevertheless thought important to select the largest and most perfectly formed potatoes for seed, because they will afford parings suitable for planting, and will probably improve the stock, which will degenerate if small and deformed ones are used for seed.

Princeton, (N. J.) Feb. 1st, 1831.

[For the New York Farmer.]

ART. XXVII.—*Remarks on the Cultivation and Diseases of Peach Trees.* By WM. WILSON.

MR. EDITOR—A good deal has lately been said in your paper about the diseases of our fruit trees. Through the invaluable means of such papers as yours, there is now a fair prospect of being able to collect thereon, and to distribute far and wide much useful information. But one great obstacle to our advancement in this department of useful knowledge appears to be the great diffidence which most men feel in attempting to offer any thing in writing which they know about to the public. They think others may know a great deal more than themselves; they fear the disparity their accounts or hypotheses might bear when compared with others; and thus, in many instances, they withhold from the public, information which might lead to the most beneficial results. This diffidence too is augmented by the severity with which some, no doubt inadvertently, disapprove the writings of those they think inferior to their own. And it must be a difficult task for an Editor to know how to control such matters. But which every well-wisher to to the advancement of horticulture ought to assist in removing, particularly as respects those whose writings may indicate rather a want of confidence. The information which the writings of such men frequently bring to light is often of more importance for the advancement of useful knowledge, than the elaborate performances of more veteran pens. As a great part of the most valuable portion of information respecting those subjects connected with our horticultural improvements, are to be derived from men little accustomed to write, nothing, certainly, could be more imprudent than to discourage the publication of their, in many instances, invaluable, although perhaps homely performances.

Mr. Darling who writes on the diseases of Peach Trees in your last number, will, I think, if he pursues the subject, contribute in no small degree to the development of some portion of that interesting branch of knowledge at which we are all wishing to arrive, viz:—the cause which occasions the premature death of the peach tree, &c.

Mr. Darling has in an honorable style and with some very plausible arguments, sent the hypotheses of all previous writers on the decay of the Peach over the same ferry. I would advise him to look out a good foot-hold for himself, as there are still some strongly tenable ground to support some of the hypotheses he has sent adrift, but about which there is no necessity of saying much at present, until further investigations are made for obtaining all the useful knowledge of which the subject may be found susceptible.

There is one circumstance connected with this subject which I have always considered of the most detrimental tendency, viz., the great despondency that has been so generally excited wherever the Peach Tree had failed; and which if it had not been for the hopes and exertions of some who still continued its cultivation, would in all likelihood have eventuated in the total loss of the plant altogether.

It appeared to most people a number of years ago, and still does to some at the present day, that unless the nature of the disease could be discovered and some effectual remedy applied, no prospect was left for ever renewing its successful cultivation. But the many thousands of bushels of fine peaches that are now again brought to the markets of Philadelphia and New York from those very districts, where the disease once prevailed the worst, prove that the alarm was unnecessarily great. And although every horticulturist ought still to pay all the attention in his power to discover the nature of the causes which have operated, and still, in a greater or less degree, do operate against the prosperity of the peach, yet no relaxation ought to take place in its continued and renewed cultivation; for by this means its renovation has in a

great measure been restored. And it would be as imprudent now to renew such discouraging apprehensions as once agitated its cultivators, as it would be to relax in our continued exertions to find out whatever can be discovered concerning the nature of that cause or causes, which as they once have operated, may again operate, even with a more severe return of their effects. Although the increasing success of its cultivation in many places, affords as strong evidences as could be produced of the good grounds which exist for relieving us from any great apprehensions on that score. An acquaintance of mine purchased, about a year ago, a small farm in New-Jersey, about thirty miles distant from New-York, for 3000 dollars. On the farm there is a small peach orchard, from the produce of which he cleared during the course of the season nearly four hundred dollars, besides having several cart loads of fruit stolen from the trees. Many of his neighbors are cultivating the peach upon an extensive and successful scale; some of whom raise great quantities every year from the pits; and most of the sorts they cultivate, are either selected seedlings, or trees worked from such. There are also many other evidences that could be referred to of the great success that has attended this mode of renovating the peach in districts where some years ago, scarcely a vestige of the trees were to be met with.

Whether the laws of nature will admit the perpetual continuation of any plant by any other means than that of a renewal from its own seed, one thing is certain, that this is the only known means by which nature has furnished all plants for a continually successive prolongation of every individual species of the vegetable race.

The practicability of continuing the propagation of the Wallflower from cuttings as permanently as from seeds, has been alluded to in Loudon's Magazine and other publications, as a demonstrative evidence of the correctness of the doctrines of those who contend that the continuation of plants may be prolonged to as great a period by budding or grafting, &c. upon new stocks as by renewal from seed. But if the correctness of their theory depends upon this test, and it is certainly as fair a one as the subject can admit of, it must fall to the ground. For the continuation of the propagation of no double Wallflower that I have ever seen tried in this vicinity, has succeeded longer than five or six years. I have bestowed all the skill and pains I could to continue several favorite varieties, but after a few years success the crops of cuttings have invariably diminished in their growth and vigor, till at last, the whole race have been so reduced as to be totally incapable of producing a single blossom. And I have been frequently as I am at present, destitute of a single flowering specimen of the plant. Nor am I singular in this respect; some of the oldest and most extensive growers of plants in this vicinity are in the same condition.

However, the object of this communication is not intended to enter into any discussion upon any particular subject so much as to advert to a few considerations which may perhaps be considered by some of your readers of sufficient importance to attract their attention, in such a manner as may induce them to let us obtain through the medium of your paper, any such information as may enable us to become better acquainted with the nature of these deleterious causes, with which many of our finest kinds of fruit trees are in a greater or less degree affected. There are many of your readers well qualified for sending many useful Physiological investigations on this subject. The very differences that would appear in such investigations, should they be published in your paper, might be the means of leading into far more valuable insight into this business, than the most extensive or scientific labors of any single individual.

And although the pursuit of such investigations generally lead men into different views, and frequently induce them to form conclusions widely opposed to each other, yet the public ought always to remember that even that writer who may happen to be on the wrong side of the question on subjects of such a nature, is in all instances when he conducts his subject with decorum, entitled to no small share of their respect and gratitude. And the man of a magnanimous spirit too, will admire him in proportion to that degree of force and ingenuity employed to support such doctrines as perhaps others less qualified than himself might not have been able successfully to oppose.

I have drawn out this paper to a greater length than I at first intended. But the subjects on which I have touched are of such an interesting nature, and are so intimately connected with those means which appear to me so well calculated to advance our harmonious investigations of the nature of those causes which affect the prosperity of our fruit trees, that I hope I shall in this instance obtain a small share of that indulgence I advocate for others.

New-York, Feb. 1831. WM. WILSON.

ART. XXVIII.—*On the Culture of the Newtown Pippin Apple.* By Mr. JAMES BRIENT.

SIR—I take the liberty of submitting to you the subjoined hints on the new culture of that celebrated American apple called the Newtown Pippin, which as yet, unfortunately, has but slightly shared that portion of attention which so strongly characterizes the age. Little short of three years ago, my attention had been much engaged respecting its culture. It then occurred to me, that the chief part of North American soils was a mixture of a part decomposed peat and vegetable leaf mould, which induced me to try the following imitation: one part peat earth, one part decayed vegetable leaf mould, and half a part loam. To each tree were applied four barrowloads of the above mixture; the holes for the tree were previously opened, and the old standing soil dispersed; the bottom of each allotment was well drained, and the trees planted as above. The annual growth made by the trees far surpasses any thing of the sort I have ever witnessed; nor has their vigor prevented them bearing fruit the second year, much finer and larger than ever before perceived by me: which fruit bears a strong affinity to the Ortley apple described by Mr. Michael Floy of New-York (See *Trans. Hor. Soc.*, vol. vi. part iv. p. 409.), and probably is the same fruit as the Newtown Pippin; which latter is very different in size and color when grown in our common soils. At all events it is sufficient to remark that not only the other American apple, but the fine long decaying varieties so nearly extinct, will be found ulteriorly to revive in the above mixture; which would, if triennially applied around the exterior roots, enable the trees to continue vigorous; and moreover, do away with the adhesive companions the canker and blight; more especially the Aphis

lanàtus would seek for its abode a more salutary habitation. As a farther testimonial for it, the above assertions may be personally proved by seeing the objects, which surpass the eulogy bestowed on them in this paper.—*London Gar. Magazine.*

[For the New-York Farmer.]

ART. XXIX.—*Observations on the Coccinella or Lady Bird, and the Aphis or Plant Louse.* By WM. WILSON.

MR. EDITOR :—From various circumstances connected with the nature of insects, their subjugation to human control has hitherto been very limited. Nor is there much probability of attaining any great command over a race of beings so numerous and so various, whose habits of life are so intricate, and for whose existence the very increase of the labors of the horticulturists adds new means for their continuation. Luckily for him the means which many of them employ for the continuation of their own individual race are attended with the most wonderful destruction of myriads of others, which, were it not for this cause, there is every reason to believe might, in many instances totally subvert his labors.

This being the case, it seems a matter of importance to consider how far he may be able to learn their various characters. As his indiscriminate opposition to them must not only be attended with less effect than if directed to a few; but without which he might as likely direct such opposition against those which it would be his best policy to preserve, and in this case would be defeating the very object he had in view.

Of those kinds however that are most common in our gardens and orchards, enough has been discovered to prove the great devastations which some of the kinds least injurious to man produce amongst those which are the most offensive. Owing to this inherent propensity by which they mutually prey upon each other, something like that principle of the balance of power, amongst modern nations, is preserved. And their being so constitutionally formed that the paramount ascendeney of any individual species could only tend to the diminution of its own resources, and ultimately reduce it to its original standard.

According to the authors of the Library of Entertaining Knowledge, vol. vi., part 2d, it appears that the most erroneous and ridiculous doctrines on some parts of the economy of insects, were not only advanced by some of the most eminent ancient Philosophers, but even in more modern times, De Montfort, Darwin, Dr. Good, and in the present day, Blumenbach, Cuvier, Bory de St. Vincent, R. Brown, &c., still maintain the erroneous doctrine of spontaneous generation.

The science of Entomology, even among European naturalists, seems to be considered only in its infancy. The transformation of some of the insects that have been long known, have not yet been observed. And of the vast varieties that exist on the eastern and this western hemisphere, probably but a small portion have been examined by men of science.

Stewart, in his "Ell. Nat. Hist.," vol. ii., page 218, after describing the Panorpa Communis," says "This is a very common insect, though its larva is as yet unknown." And at page 287 he says of the genus Bombylius, "their metamorphosis has not hitherto been observed." The editors of the Library of Entertaining Knowledge, vol. vi., part 2d, page 269, in speaking of the popular mistakes that still exist, observe that "a correspondent in the Natural History Magazine, (1st, 192 in a note,) for example says :—"the lady bird is remarkably abundant this season. The shrimp (larva) of this insect destroys both turnips and peas in many parts of England." And then proceeds, "The truth is, however, that all the species of lady bird (Cocinellidæ Latr.) both in the larva and perfect state feed exclusively on aphides, and never touch vegetable substances."

It is probable however, that if these editors had been acquainted with the cucumber and melon fields of America, they might have hesitated such assertions. From the mistake that here evidently exists in one or the other of these most respectable publications, I feel more diffident in my long established belief that different species of the lady bird frequently injures the leaves of our cucumber, &c. Every body knows the mischief that is yearly done amongst our melons, &c., by a little striped bug, (as it is called;) and the lady bird, (or bug as it is more generally known by here,) which is a little larger and of a more round form with dots instead of stripes on the cover (elytra) of its wings, seldom fails to accompany it. And in many instances I have seen whole hills of plants swarming with them, and the leaves eaten and destroyed more than where the striped bug only prevailed. In the month of May or June there will be abundant opportunities afforded for determining this matter. It is one of great importance to cucumber and melon growers, as the lady birds, I believe, have always been killed indiscriminately with the striped bug.

As some of your readers may be unacquainted with the terms used in Entomology, and who may yet be anxious to be able to identify the lady bird, and to examine its habits, &c., perhaps the following unscientific sketch may be of some use for their assistance. Its form is very similar to the one half of a split pea. There are upwards of a hundred species and they vary in size from that of half marrowfat to less than the smallest garden pea. The scales (elytra) that cover their wings in some of the species are red, with black dots. In others they are yellow or yellowish, with black dots. Some have red covers with white dots; some have white lines and dots; some have black covers with red dots, others have black covers with yellow dots, others black with red dots, &c. The number of dots vary in different species, from two to twenty, and upwards. The fact that the lady bird lives chiefly, if not exclusively on the aphides, renders the ascertaining the true object of its operations amongst our melons, &c. highly important. As the aphides are one of the most numerous and troublesome pests of the garden, the lady bird, if it be found inoffensive to plants, ought to be encouraged for the purpose of destroying them.

The species of aphis are probably as numerous as the plants that spring from the ground, and their capacity for increase almost surpasses belief. Reaumer proved by experiment that one aphis may be the progenitor of 5,904,900,000 descendants during its life, (a single season.) And what is most singular, each individual produced in the fore part of the season, is capable of producing another generation without being in presence with a male, and so on to the ninth generation. Many other species besides the whole family of the lady bird, devours them voraciously. Should any

of your readers be at a loss to know what sort of cattle these aphides are, if they have ever seen cabbage leaves covered with a white blueish powder, hobbling with heaps of large green lice, then they have seen one species of aphis. And by studying it a little they will be at no loss to guess at the others.

[For the New-York Farmer.]

ART. XXX.—*Cultivation of the Vine—Remarks on Mr. Wilson's Review of Prince's Treatise on the Vine.* By A. LOUBAT.

MR. EDITOR—In the last number of your valuable publication, I observe some strictures on Mr. Prince's Treatise on the Vine, from the pen of Mr. W. Wilson, to which, with the kindest feelings towards both those gentlemen, I beg permission to make a brief reply.

I agree with Mr. W. W. that in clothing the ideas he has borrowed from the French with an English dress, Mr. P. has been led into errors that materially interrupt the order and precision of his work.

Had the book, in fact, been entitled—"*A Translation of Extracts from French Treatises on the Vine, containing Historical Facts and Fables, from the time of Bacchus to the present period—with a Catalogue of the Imperial Garden of the Luxembourg, and a faithful Record of all that has been written on the American Vine annexed,*"—Mr. W., with no reason, (barring mistakes of translation) could have cast a censure upon the volume.

In accordance with the last remark, Mr. P. (page 57) speaking of the effect the winds have upon the vine, says—"the *dry* east and the *rainy* west winds are equally injurious to the vine;" undoubtedly forgetting that the difference of position between Europe and America completely reverses the nature of the winds, and consequently changes their effect upon vineyards in the same ratio. Although much depends upon the influence the winds may have, in selecting a location for planting, yet no serious evil could grow out of so evident an inaccuracy.

Again, in page 55, "It is very seldom that the old wood of vines is frozen." This is true in Europe, because there they are sectionally selected from long experience; but the remark will not apply here. It is only after the loss of two hundred thousand vines that I have ascertained the kinds which will effectually resist the frost and mildew. Same page, he says—"The vines which have been worked the latest in the spring are the most susceptible to the attack of the frost." The fact is the contrary: the later a vine is worked, the later it grows; and, by the same reason, is less subject to spring frost.

As respects the immense variety of vines, Mr. P. is correct in stating it to be impossible to mark the precise difference. Indeed, had he not made this candid confession, the fact was evident by his description of over *two hundred* kinds, which he calls by *fifteen hundred* French, and about *six hundred* Latin names. It is to be regretted that he had not given the *eight or nine hundred* German, *five or six hundred* Italian, *nine hundred* Spanish, and the *thousand* Persian and Arabian names, to complete the catalogue. It would then have only needed the aid of some scientific gentleman to have added the Chinese and Indian christening, to have brought his schedule to the greatest possible state of perfection.

But for this he is certainly excusable: for Chaptal, the famous Chaptal, arrayed in all the despotism of a minister of Napoleon, was unable to arrive at any thing like an accurate, or even a satisfactory, classification. Having given orders to the Mayors of the Empire to send specimens of all the kinds cultivated in their respective neighborhoods, he received an immense variety, which Mr. P. has kindly furnished us in *one hundred pages* of his work. But Chaptal found, when this immense Babel was in bearing, that *one hundred* only were capable of being described by a marked difference.

When Mr. Wilson criticised Mr. P. for not having given a particular "code of rules" for the culture of the vine in America, it was certainly without proper reflection. The same directions which are observed in Europe, will apply equally well here. All that has been written upon the culture of this precious fruit, may be summed up in the following brief remarks.

In planting a vineyard, select a friable soil, on a gentle declivity, sheltered from those winds which are most pernicious in the country you plant. If a prosperous vineyard be already in your vicinity, select from it those vines which succeed the best. But should you not have access to such, plant a great variety, reserve those which are successful, and dig out the others. The richer the soil, the longer must be the pruning—the poorer, the shorter. To extend vines to high culture, or in arbours, or upon trees, it must be done gradually; and they should not be suffered to produce much fruit the first five years. Never plough while your vines are in blossom; the hotter the summer the higher vines must be kept; and lower, as it may be cooler. As to insects, the only way to destroy them is patiently to hunt them out.

To make wine, wait till the grape is in the greatest state of maturity. As to the way of manufacturing, that depends entirely upon those for whom it is intended. To produce light wines, the juice of the grape should be put in fermentation as soon as gathered; for sweet wine, the fruit is exposed on straw to the sun, or placed in an oven, until it be wrinkled—or the juice boiled, and then put in fermentation; for strong wine, having observed the last directions, after the fermentation is over, add the necessary quantity of alcohol.

These rules hold good for every climate. Scientific men may tell how the Greeks, the Romans, the Phœnicians, and others, have cultivated vines, but all their erudition can come to no result more accurate than the rules above described.

Mr. W. W. observes that Mr. P.'s book is useless, no instance in this country having occurred in which the foreign vine has been successful. Had Mr. W. been at the trouble, last fall, of visiting my vineyard, where he might have seen forty acres, containing sixty thousand vines, (many loaded with fruit) which have been in a flourishing condition for the last three years, he never, certainly, would have made so inaccurate an assertion. Not fifty to a thousand bunches were lost, and, with the experience I now possess, no doubt is left upon my mind of the most complete success of the European vines, upon a large scale, in this country. The experiment, including the land, has cost me thirty thousand dollars. In 1828 I planted 125,000 vine roots, three years old, and 150,000 cuttings; in 1829, 86,000 three years old roots and 55,000 cuttings were

added to the number. Of all these, only 60,000, composed of fifteen different kinds, were able, unprotected, to contend with the severity and changes of this climate. This knowledge, though dearly bought, I conceive to be invaluable. You, Mr. Editor, and all others who have honored me by becoming welcome visiters at my vineyard, can bear ample testimony to the truth of this statement. Before Mr. W. had ventured upon so broad an assertion against the success of the vine, he might have convinced himself, not only by *seeing* and *touching*, but *tasting*, had not he have had less faith than St. Thomas.

It is not so strange, however, that a vineyard like the above, within six miles of this city, should have escaped Mr. W.'s attention, which Mr. P. appears to have thought unworthy of even being mentioned in his learned Treatise.

When enterprising persons undertake extensive experiments, they will frequently be attended with great loss, as has been the case in the present instance. But while many kinds of vines have failed, it may emphatically be said that many have succeeded. That which should have been the work of a company, under the protection of an act of incorporation, and with the powerful sanction of the whole community, has been effected by the exertions of an obscure individual.—My vineyard will not be three years old till next April. Last fall it gave four thousand pounds of grapes, besides about sixty gallons of wine. I am perfectly satisfied with the result, and with my knowledge and experience, hereafter I can scarcely be disappointed of success; and candidly confess I look with sanguine expectation for the rich reward of my labors, and the success of my warmest wish to introduce the vine, which is so justly esteemed the source of much wealth to Europe. The promotion of temperance demanded it: and permit me to add, Mr. Editor, my own personal views were strongly in favor of it; for under your free institutions, the height of my ambition was to behold the spreading vine and the delicious grape enriching the land of my adoption.

Remarks by the Editor—Duty to our readers, particularly to those who are at a distance, calls for some explanation of the discrepancy of opinion concerning the foreign vine amongst our distinguished horticulturists in this vicinity. As it respects Mr. Wilson and Mr. Loubat, the former gentleman expressed strong doubts, some years ago, concerning the success of foreign vines, and has been so much on the look out for facts to support his doubts, that he, as most men generally do, neglects to give due weight to facts contravening his sentiments. He thus has been led to give recent currency to his opinions, without having visited Mr. Loubat's vineyard not only for the last year, but for the two past years. Whereas Mr. Loubat appears to have taken those very steps which Mr. W. recommends, and has, even before this time, publicly asserted his favorable opinion of the foreign vine, from his own experience. During this last season of fruiting, he publicly invited all those interested in the vine to visit and examine his vineyard.

There is much prejudice and closing of eyes towards imported varieties of the vine. As an instance: after Mr. L. last season had gathered most of his grapes, and after the quantity which his vineyard had produced had been mentioned in several papers, the *Editor* of one of the oldest papers on Long Island, within six miles of Mr. Loubat's vineyard, pitied our credulity when we asserted, even after we had seen the vineyard and tasted the grapes, that Mr. L.'s vines would produce 4000 pounds. He would (he said) give his head for fifty pounds.

As for Mr. Wilson, we believe he is the last man who would wilfully do Mr. L. any injustice by withholding facts.

When it is considered that Mr. Prince is decidedly favorable to the success of the foreign vine, and that the object of his Treatise was to gather information from all quarters, it is difficult to account how he could honorably omit to take the least notice of the Loubat vineyard. If he considered Mr. L. as having failed, he should have explained to the public how he can conscientiously recommend foreign vines for sale. If he considered Mr. L. as having made a successful experiment, it was on too grand and extensive a scale to pass unnoticed. Perhaps, however, he intends to do ample justice in his forth-coming work. We hope he will.

As it respects this, and every other controversy in the New-York Farmer, we earnestly wish they may be conducted honorably, and without the least unfriendly feeling. As for ourselves, we shall treat *all* as friends and *none* as enemies. If we err, or do injustice to any one, we will make all the amends in our power. Neither Mr. Prince, nor any other writer who has written a good book, will be injured by having his work criticised. Mr. Wm. Robert Prince is a young writer, and if he has wisdom, will not regret having his early faults clearly pointed out.

[For the New-York Farmer.]

ART. XXXI.—*List of Hardy Perennial Plants, calculated for Garden Borders, for Shrubberies, &c., with short descriptions.* By M. FLOY, Nurseryman.

Actæa Americana, a plant with spikes of white berries, and a variety with red berries; native from Canada to Virginia, growing in shady, rocky woods, and considered by the natives as a valuable medicine—as this country is very rich in her swamps and shady wood productions, containing many beautiful plants which will not grow in common garden soil with common culture, I shall recommend to the notice of such as feel a pride in cultivating them, a border calculated to receive them, and shall call it the American Border, which I will describe at the end of the list, marking all such plants as ought to be planted there by the letters A. B.

Amsonia salicifolia, Amsonia latifolia; willow leaved and broad leaved Amsonia; a perennial with pretty blue flowers; native of the southern states, but perfectly hardy here, and easy of cultivation.

Anemone Thalictroides, flore pleno, a beautiful plant. The single flowering is common all over the country; the double kind was found first in Pennsylvania, and has been found in New-York. It is best planted in the American border. [A. B.]

Anemone hortensis. A very splendid collection of this species called Anemones by florists, of all colors, are cultivated in the gardens of Europe. They are a kind of flat bulbous roots; have not heretofore been much cultivated in this country, our summers being

too hot, and the seasons too dry for them in the common garden method; but if planted in a prepared border in a shady situation, to the north of a fence, I think they might succeed as well as the Ranunculus. In the American border described at the end, I have but little doubt that they would succeed in great perfection. To those who have never seen a bed of these beautiful flowers, it would be a luxury indeed. The roots may be imported very well: the leaves die soon after flowering, and remain for months in a dormant state; but it is no use to plant them here in a common way, for the trouble and expense of preparing a proper bed for them are not great. The roots need not to be taken up except for the purpose of dividing them, or they may be taken up in the month of July and kept in a dry state, and planted again in October or November. [A. B.]

Primula, (Primula Auricula,) another noted favorite florist flower, of which there are numberless varieties of various colors; some choice kinds sell at very high prices. Although the original plant came from the Alps of Switzerland, yet they require protection in winter, and have not been much cultivated in this country; our summers are too long, and too hot for them. In winter they should be kept in frames; they would perhaps do better in Canada, where the snow would cover them early in fall and remain over them till spring.

Aralia racemosa, spikenard, highly esteemed as a medicine, and a beautiful plant; generally full of small red berries in large bunches, covering the plant all over during the summer and fall months; a native of rocky and shady situations from Canada to Carolina; will grow without trouble in any part of the garden.

Aralia nudicaulis, commonly called *sarsaparilla*, a well known medicinal plant; native, from Canada to Carolina, in shady, rocky woods; will bear cultivation very well.

Asclepias tuberosa, and *Asclepias decumbens*, butterfly weed and pleurisy root; the flowers are orange yellow, and very beautiful; it has been proved to be an infallible cure for the pleurisy, and well known to the physicians; native all over the country, in fields. A plant or two should be introduced into every garden for its use and beauty; it will grow without any trouble in any part of it.

Apocynum cannabinum, Indian Hemp, one of our best medicinal plants, and an affectual cure for the dropsy. I have living testimony near me of a man now more than eighty years old, that was cured many years ago from the last stage of dropsy; and not two years since he effected a cure of a gentleman whom the physicians had given up as a hopeless case, besides a number of others. Every physician should be acquainted with it; I think it important to say a little more on this subject. There are three species of *Apocynum*, natives. But the true kind may be known by its *blackish roots;* its flowers are small, and generally grow in rich, low meadow land; pretty common and very generally called Indian hemp; it increases itself in abundance by its running roots, and is therefore not calculated for a garden, but may be planted in a low waste piece of land for use. The receipt is as follows: one oz. of the roots, when cleaned from the dirt, is to be put in a pipkin, with one quart of spring water, and boiled down to one pint; the residue strained off; add to it one pint of good Holland gin, and it is fit for use. The dose is half a wine glass full at a time, three or four times a day, until the complaint is removed. As every man must live by his business, I must apologize for intruding on the profession. I hope, however, the faculty will take the subject in hand, assuring them that I can produce proof that will be satisfactory of its entire efficacy.

Antirrhinum majus, snap dragon, native of England. There are some pretty varieties. It is a good garden flower, easily cultivated in the flower garden.

Aquilegia vulgaris, Columbine, native of Britain. Several varieties of various colors, all pretty and fitted for the flower garden.

Aquilegia canadensis, American Columbine; the names Canadensis, Virginica, Pennsylvanica, &c., given in Europe to plants when first introduced from this country, do not always mean that the plant grows only in these places. The American Columbine is scarlet and yellow mixed, and grows among rocks from *Canada* to *Carolina*, and may easily be transplanted to the gardens. It is very showy.

Aster, Starwort, Michaelmas daisy, a large genus of American plants, abounding all over the country in almost every situation; enlivening the fields, hedge rows, and swamps, in the fall of the year. Pursh enumerates 78 species, native of North America, some of the kinds are very handsome, and if they were not so common would be thought worthy a place in the gardens and shrubberies as they are in Europe.

Aster sinensis, China Aster; a beautiful annual flower of various colors; raised yearly by seeds.

Cassia chamæcrista, a very pretty annual, with yellow flowers; native, and common, but well worth introductng in the flower garden; raised from seeds.

Cypripedium, ladies' slipper, or more properly moccasin flower, several species; 1. *acule*, or *humile*, dwarf purple moccasin flower: 2, *parviflorum*; petals greenish brown, lower lip yellow with brown spots: 3, *pubescens*, petals greenish yellow with red spots; lower lip yellow: 4, *spectabile*, flowers very large, lower lip white, with red veins; and crimson spots inside. These four beautiful and curious flowers should be planted in the American border, they are native from Canada to Carolina, in low shady places, in a black soil; they will not thrive in the common garden. [A. B.]

Coreopsis tinctoria, a very pretty annual, from the Mississippi, now quite generally known, although not many years introduced to our gardens. Of Perennial coreopsis 18 or 19 sorts are native, and some of the kinds well worth a place in the flower garden.

Conium maculatum, true hemlock, native of Britain. I introduce this plant to notice on account of its medicinal quality, not as a plant for the flower garden. It is, in fact, a strong narcotic, or poisonous plant; but its virtues have been much extolled in Europe, for the cure of cancers; and in the hands of a judicious physician, (for it should not be trusted to unskilful hands,) has been said to be the only plant that has had any effect in curing this dreadful malady. It is perfectly hardy, and ripens perfect seeds every year.

Convallaria majalis, lily of the valley, deserves a place in every garden. It thrives best in a shady situation, a low growing plant with racemes of white, sweet scented, flowers in May; is very hardy.

Campanula, speculsum, Venus's looking glass, a pretty looking annual, from the south of Europe.

C. medium, Canterbury bells; a showy flowering plant, introduced to the flower gardens from Germa-

ny. It is a biennial plant, and must be renewed by seed.

C. persicifolia; the double white, and double purple, varieties, are very ornamental perennials.

C. trachelium, nettle leaved bellflower; a double white variety of this species also is introduced into the flower garden—a perennial.

C. pyramidalis, large pyramidal, blue bellflower; this is a beautiful biennial plant and must be renewed by seeds; it requires a little protection from frost the first winter.

Corydalis cucullaria, Breeches flower; or yellow breeches, flowers white, with a yellow mouth, of a singular shape, with a resemblance to the name commonly given it; native, found among rocks, in a rich mould, from Canada to Carolina. [A. B.]

C. formosa; flowers a lively bright red, the shape like the former; native, found on rocks and mountains from Virginia to Carolina. [A. B.]

C. fungosa, a delicate twining plant; native of the woods of Canada to Pennsylvania; pretty to train on poles on the back of a shady border. [A. B.]

Chrysanthemum indicum, called generally, *artemesia,* a splendid collection of those fine showy flowers for the fall display, introduced from China; but quite hardy here. The following varieties are in the gardens about New-York; viz—1, common lilac; 2, superb lilac; 3, Spanish brown; 4, early crimson; 5 late quilled lilac; 6, deep purple; 7, expanded light purple; 8, curled lilac: 9, bright yellow; 10, orange; 11, large flame quilled; 12, sulphur yellow; 13, superb white; 14, white quilled; 15, paper white; 16, white with pink centre; 17, silver tassel; 18, superb cluster, yellow; 19, single yellow; 20, straw colored, quilled; 21, small cluster yellow; 22, semi double quilled white; 23, early blush; 24, pink quilled; 25, golden lotus; 26, two colored red; 27, starry purple. With two or three small kinds they make a fine display in flower, and are kept in pots by the curious.

Dianthus caryophyllus, clove pink Carnation. Carnation pinks are a superior tribe of florist flowers, of great beauty and variety; they are hardy to stand out in an open garden, protected during the winter with leaves and straw; but the florists in Europe display them in pots, and keep them in glass frames during the winter: they are arranged by florists into flakes, bizards, and piccatees; some of the fine flakes and bizards sell at high prices; what is called properly, pinks flower low and near a month earlier; there is a great variety of these also as well as many species; some of them well worth cultivating for their fragrance and beauty, and are a great ornament to the flower garden, and easily increased.

Dianthus barbatus, sweet Williams, are quite hardy, and generally well known in most gardens.

Digitalis purpurea, or foxglove; a native of Britain, and with its long spikes of large bell shaped flowers, is showy and handsome. The white foxglove is like the other, except having white flowers; the plant deserves a place in the flower garden, and is easily raised by seeds; a biennial plant. The leaves of *digitalis* have been extolled in medicine. Dr. Withering published a treatise on its virtues.

D. lutea and *D. ferruginea* may have a place in the garden.

Dionea muscipula, Venus fly trap. This little, delicate, curious plant, with leaves in the form of a rat trap, which spring up and catch the poor flies that trespass on them. The flowers are pretty large for so small a plant; native of mossy bogs in North Carolina, and has not been found, I believe, in any other part of the country.

Dodecatheon media, American cowslip; one of our little native beauties and easily cultivated; grows wild in Pennsylvania, about a foot high, with a large bunch of beautiful and spotted flowers; there is also a white variety, well worthy of a place in the flower garden.

Dictamnus albus, or Fraxinella; two varieties with white and red flowers, native of Germany, the leaves resemble the leaves of the ash tree; hence the name Fraxinella. Highly worthy of a choice place in the garden.

Gentiana, several species, natives, from New-York to Carolina.

G. crinata, or *fimbriata,* a beautiful species from the swamps; the flowers are a bright blue, with the edges handsomely fringed, and may without difficulty be transferred to the flower garden, selecting a shady and rather damp situation. [A. B.]

The other kinds, *Gentiana pneumonanthe, saponaria,* and *ochreleuca,* also deserve a place in the flower garden.

Eupatorium celestinum, a beautiful perennial plant with bright blue flowers in great profusion; a native of the southern states, but quite hardy, and very ornamental; flowering all the summer.

Eupatorium perfoliatum, thoroughwort, and *boneset,* a well known and very common plant, growing in all our meadows. Its medicinal virtues in intermittent fevers are its principal recommendation.

Gerardia, a beautiful tribe of native plants; the flowers are somewhat in appearance to the foxglove; *Gerardia flava, Gerardia quercifolia,* and *Gerardia pedecularia,* are very showy and worthy a good place in the garden; found pretty common at particular places, in woods, on rocky ground and may easily be cultivated.

Gerardia purpuria, with purple flowers, grows in swampy places should be planted in the American border. [A. B.]

Glycine tuberosa, or *Apios tuberosa,* a beautiful bulbous plant; the flowers are dark brown, and sweet scented; it is found in the swamps from Pennsylvania to North Carolina; but might be planted in the shady part of the garden. [A. B.]

Helianthus multiflorus, flore pleno; native, a very showy and double perennial sunflower; will grow any where without trouble.

Hibiscus palustris, common in our swamps, and has very showy large flowers; well calculated for borders in front of the shrubbery, or outside plantations; two varieties.

H. grandiflorus, very large; flowers flesh colored, with a red bottom; the stamina yellow.

H. speciosus; flowers deep scarlet, and very beautiful; this and the former species are natives of Carolina, and will not stand our winters without protection.

H. manihot; flowers sulphur yellow, with a purple bottom; a most splendid plant when in flower, but the plants require protection during the winter here; a native of the banks of the Missisippi.

Hemerocallis flava, yellow sweet scented day lily; very easily cultivated; native of Siberia. *Hamerocallis fulva,* tawny day lily; native of the Levant. pretty common in gardens.

H. japonica, a beautiful large white flowering plant from Japan, with large leaves, but is quite hardy here, and another instance of plants from Japan being accomodated to our gardens.

H. cærulea, with large blue flowers; from the same place and quite hardy.

Hollyhock, Althea ficifolia; a collection of double Hollyhocks, of which forty or fifty varieties of all colors and shades, from the purest white to jet black; makes a beautiful show; with care they may be perpetuated true to their sort, by seeds selected with care; they grow tall; they ought to be planted in front of shrubberies, or outside planting, or, in borders, around the centre walk, making a noble appearance. *Althea rosea*, of China Hollyhocks are of lower stature and generally called annual; they are rather biennial.

Iris, flower de luce; a very singular and handsome tribe of plants, of which there are about fifty species, eight of them native; all worthy of attention, and some very beautiful.

Kuhnia eupatorioides; native of our swamps, a twining perennial plant producing thousands of eupatorium like flowers; it well deserves a place in our gardens.

Liatris, a very showy beautiful tribe; a kind of bulbous rooted plant; seventeen species are noted as natives of our swamps, scattered through the United States and Canadas; I shall note a few for the A. B. collection.

L. squarrosa, and *L. scariosa*, native of mountain meadows, from Virginia to Carolina. The roots of these two species are used as a cure for the bite of a rattle snake; the bulbs bruised and applied to the wound, while at the same time, they make a decoction of it in milk, which is taken inwardly (See *Prenanthus serpentaria);* the whole tribe is worthy of attention and cultivation. [A. B.]

Lupinus perennis, an elegant perennial plant, native of dry hills, scatterred over certain parts of the country, from Canada to Florida; well worth cultivation. Three or four sorts have been lately introduced from the North West Coast, by Douglas. I shall notice particularly one kind that flowered with me last year, requiring no sort of protection during the winter.

L. pollyphyllus. The spike of elegant blueish purple flower, from two to three feet high; continued in flower a month. I saved a few seed, and am in hopes to make it generally known; the other kind Lupinus bicolar flowered also; the flowers white and yellow, and very sweet scented.

Lupinus, or the annual kinds of Lupins, from the south of Europe, has long been known to the gardens in Europe, seeds of which may be obtained from the principal seed stores. There are five or six sorts.

Lychnis chalcedonica, flore pleno, or double scarlet lychnis; a very showy beautiful scarlet perennial, from Russia, long known and cultivated in every good flower garden; a little protection or covering with leaves during winter is proper; indeed all the flower beds are the better for it, taking away the covering as soon as winter disappears.

L. flos cuculi, or Ragged Robin, a native of Britain; the single common kind is worth little attention; but of late a beautiful double kind has been diffused through our gardens, and makes a fine show.

Linnæa borealis, named after the celebrated *Linnæus.* The plant is found abundantly in our swampy woods, from Canada and on the swamps of the mountains from New-York to Pennsylvania; a very curious circumstance of its growing wild in this country, as well as through most of the northern regions of Europe. Is it because all the world is the country of this great Naturalist, that nature shows her little favorite flower all over it? The flowers are white, tinged with red, any may generally be found in the moss; a trailing plant, and will be treated with respect, I hope, by every gardener.

Lobelia cardinalis; scarlet Cardinal flower; a beautiful plant with its bright scarlet flower; the ornament of our swamps and brooks; is well worthy a place in the flower garden, and may easily be cultivated; native from Canada to Carolina. [A. B.]

L. syphilitica, blue cardinal flower; common in our low grounds, and on the banks of rivers, near springs; from New-York to Carolina; is well worthy of cultivation, not only on account of its beauty, (although by no means as handsome as the former,) but for its medicinal qualities particularly said to be efficacious in *sipkilis*, and other disorders. Pursh says it was introduced into Europe nearly two hundred years ago, for its great medicinal qualities.

L. fulgens, a very beautiful large scarlet flowering perennial plant; introduced from the Mississippi; requires a little protection here—it is a beautiful plant.

Monarda didyma, Oswego Tea; a native of the high mountains of North Carolina, according to Mechaux. It is a showy scarlet flower, and by the name of Robin Runaway, generally cultivated in the gardens.

M. kalmiana, native, in boggy woods, in black rich soil, near Onondaga, and Oswego, New-York; it is very like the former in color, and quite as easily cultivated.

M. fistulosa, flowers purplish; and several other sorts, all easily cultivated if once introduced.

Mimulus, or monkey flower; a very curious species of this genus introduced from the North West Coast latterly; is well deserving a place in the gardens, it is called *Mimulus muschatus*, and has a very strong smell of musk; and may with propriety be called the musk plant; it is quite hardy.

Mimulus rivularis, from the same place, has a large yellow flower, with a large scarlet spot, which makes it have a pretty appearance when in flower.

Œnothera, or Tree Primrose, of which there are several very beautiful species, natives of this country.

Œ. grandiflora, a very handsome plant with large yellow flowers.

Œ. linearis, fraserii, and several other sorts claim a place in the garden for their beauty.

Pæonia. The Peony has long claimed a choice place in the flower garden; with its very large double crimson flowers, remaining in the garden without trouble. Of late years some new and beautiful kinds have been obtained from China and Siberia which are quite hardy.

P. officinalis fl. pleno albo, double white with a little tinge of blush; a variety of the European kind mentioned before:—

P. albiflora, candida, white Chinese Peony, pure white.

P. albiflora whitleji, double white Chinese Peony, beautiful.

P. albiflora humei, large double rose do. do. very large.

P. albiflora flagrans, double sweet scented do. do. All these kinds are indispensable in all good gardens; they make the greatest ornament and are all perfectly hardy.

Papaver somniferum, the large garden poppy, from which opium and laudanum are made. This is an annual plant and easily cultivated from seeds, many beautiful varieties of colors, with double flowers, are produced, and are well worth cultivating for their beauty, as well as for an article of commerce.

Papaver bracteatum, a perennial plant; the flowers are very large, of a beautiful scarlet color; when in flower has a very imposing appearance and is perfectly hardy.

Petunia nyctaginiflora, a plant newly introduced, to this country; the flowers are large, white, and sweet scented, much like the *mirabiles* or marvel of Peru; it is very hardy, and easy of cultivtion, flowering most all the summer; an acquisition to our gardens.

Pinks, (Dianthus,) or Garden Pinks. The Pink and its various varieties are well known to the gardens. The florists have many beautiful sorts some of them with great names, and high prices; they are deservedly great favorites, and ever will be so on account of their beauty and fine scent. They are the pride of June, are easily cultivated, and very hardy. The China Pink, *Dianthus Chinensis* is raised from seeds, and flowers the first year, although the roots will stand several years. There are many beautiful varieties raised from seed, and with care will generally produce the same kinds again. (See Carnation.)

Primula vulgaris, or common Primrose, native of Britain. It does not stand our winters without protection under frames. The double flowering kinds of which there are three or four kinds, are very beautiful.

Primula polyanthus, a choice forest flower, of which a great many fine sorts are named in the florists' catalogues; they are very beautiful, but require the protection of frames and glasses in this country.

Podophyllum peltatum, May apple, by some called Mandrakes; native in shady wood, generally on moist ground; New-England to Carolina; flowers white, the fruit is the size of a plum, and eatable. It is a curious plant with long palmated leaves, and is worth a place in the garden, being easily cultivated.

Polygala Senega, Seneka snake root; native on the sides of hills, and in dry woods, in Canada, and throughout the Alleghany mountains: much used in medicine, and on that account a plant or two should be introduced in the medical department.

Prenanthes serpentaria, lion's foot, and rattle snake weed; native on the mountains of Virginia and Carolina found also in Jersey, a valuable medical plant. I extract the following from Pursh's Flora as worthy of attention; flowers from August to October; about two feet high; flowers pale purple. "This plant is known by the inhabitants under the name of *Lion's foot*, and is in high esteem in curing the bite of the rattle snake.

"During my travels throught he mountains of Virginia, I had an opportunity of being a witness to the efficacy of this remedy. A man living in cove mountains, near the sweet spring, was bit in the foot by a Moccasin Snake, a species considered the most dangerous. An inflammation and swelling of his whole leg took place immediately; but by taking the milky juice of this plant, boiled in milk, inwardly; and applying to the wound the steeped leaves, which were very frequently changed, he was cured in a few days." (Pursh's Flora, page 499, vol. ii.—*Syngenesia Equalis.*) The plant should be introduced into every garden, the whole plant with its curious sinuated, palmated leaves, and the flowers growing in bunches, is in itself sufficiently interesting as an ornament to the garden independent of its medical qualities.

Phlox. This is a very beautiful tribe of American perennial flowering plants; 16 species are enumerated and all of them worthy a place in the flower garden; most of the species are natives of the southern states; but they bear cultivation in any part of the United States, being perfectly hardy.

Phlox setacea, or moss Pink, a beautiful little spreading plant; and when in flower, the plant is completely covered with the blossoms, which are pale rose colored with a purple star in the centre.

P. paniculata: flowers purple, stem from three to four feet high.

P. undulata, a beautiful plant, resembling the former, but later; flowers same color as the former.

P. pyramidalis, flowers a beautiful purple; the plant not so tall as the two former species.

P. latifolia, flowers purple and large.

P. maculata, flowers purplish violet, or purple; stem spotted with brown dots.

P. suaveolens, flowers white, sweet scented and beautiful. I have frequently seen a purple variety, and sometimes on the same plant.

P. carolina, flowers beautiful pale purple, the size of P. suaveolens.

P. glaberrima, flowers deep purple.

P. speciosa, flowers white with a purple centre. They appear in such abundance that they cover the *shrub*. This species was found on the plains of Columbia by M. Lewis.

P. aristata, flowers red and sometimes white.

P. divaricata, flowers purplish blue; plant of low growth.

P. ovata, flowers beautiful reddish blue.

P. stolonifera, flowers blue, with a purple centre. The whole tribe are easy of cultivation, and will grow in any part of the garden.

Polemonium cæruleum, or Greek Valerian; a very pretty perennial flowering plant; native of England, and worthy of a good spot in the flower garden; there is a variety with white flowers from the same country.

Polemonium reptans; native in the mountains, on the side of rich hills of Pennsylvania; flowers sky blue.

Ranunculus asiaticus, a great florists flower, who enumerate hundreds of varieties introduced from the *Levant*. Nothing can exceed, in magnificence, a fine bed of Ranunculuses of all colors, shades, and tints; but the same difficulty attends their cultivation in this country as said before of *Anemones*. I would advise the same kind of management. (See Anemone.)

R. aconitifolius plenus, double white mountain Ranunculus, or Fair Maids of France; this beautiful little white flower is rather shy of cultivation here, and can scarce be kept at all; it might be treated in the same way as the Asiatic Ranunculuses, but still, being a mountain plant, our summers are too long and hot for it. The roots frequently rot in summer.

Rhexia virginica, and two or three other beautiful sorts, natives, from New-York to Carolina; ought to be introduced to the American border. [A. B.]

Rheum palmatum, Turkey Rhubarb; a very val-

uable medicinal plant, at present very scarce, but ought by all means to be generally cultivated. The rhubarb sold in the shops is from inferior kinds, generally of the two following species; this kind may be known from the others by its large *palmated* or hand-shaped leaves.

R. rhaponticum, and *R. tartaricum*. These two kinds are the rhubarb sold by the druggist, imported from India, but are very inferior to the true Turkey, palmated kind. The plants are perfectly hardy, and there is little need of importing rhubarb; the plants produce seeds well, and any quantity may be raised in this country; they are as hardy as dock roots.

R. undulatum, compactum, hybridum. These three kinds are generally cultivated, and the stems of the leaves used for tarts, which are very fine eating, by some preferred to gooseberry tarts. They are worth cultivating for culinary purposes.

Rudbeckia purpurea, a very ornamental showy perennial; flowers large, rays purple, centre brown, native on the mountains from Virginia to Florida.

R. fulgida; rays dark orange colored, centre deep purple; native, mountains and woods, from Pennsylvania to Carolina. The above, with several other fine sorts, may obtain a place in the garden; they are easily cultivated.

Sarracenia purpurea, side saddle flower; a native of our swamps, generally abounding with water; as it is a very curious plant the leaves resemble pitchers, and are usually full of water. The flower has a curious appearance. The plant may be grown in wet moss for their curiosity, occasionally watered.

Solidago, or Golden rod; of which there are a great many native sorts; these, with the asters, constitute the principal flowers of the fall. In Europe they find a place in the flower gardens; we have them here wild all over the country.

Sanguinaria Canadensis, or Blood root; the flowers are white, the root of a blood red; it is used in medicine, and worth attention; a native of the woods in low places from Canada to Florida.

Scutellaria lateriflora, skull cap; the flowers are small, blue, and grow in racemes, or long bunches. As this is the famous plant said to be a certain cure for *hydrophobia*, or bite of a mad dog, and as there are several other species scattered over the country, the true kind may be distinguished from the others by the description of the flowers, growing in *racemes;* the plant is found generally in meadows, and by the side of brooks, from Canada to Carolina; the flowers appear from July to September, and plants may be taken up with a good ball of earth, and planted in a shady part of the garden. They are easily cultivated, also, by seeds.

Spigelia Marylandica, pink root; a beautiful perennial, with large scarlet flowers; native from Maryland to Carolina, on the edges of woods, in rich moist soil; this plant is highly deserving a place in the garden, although it requires protection here during the winter; it is, and has long been, highly esteemed, and the roots under the name of pink root, sold in the shops as a certain cure for worms in children.

Spiræa filipendula pleno, a beautiful double, white, flowering perennial, native of Britain.

Spiræa ulmaria, Meadow sweet, queen of the meadows; also native of Britain, both deserving a place in the garden for its sweet flowers.

Spiræa aruncus, native of the mountains, Pennsylvania to Georgia; flowers white, a very elegant plant, quite hardy.

Spiræa lobata, a beautiful perennial plant, flowers red, in large clusters; native in meadows, Virginia to Carolina, quite hardy and easily cultivated.

Spiræa trifoliata, native in shady woods, and on bogs, from Canada to Florida, principally in the mountainous parts thereof; flowers large, white and showy, and easily cultivated.

Tradescantia Virginica, an old resident of the gardens, carried from this country to Europe, two hundred years ago, and esteemed for its curious blue flowers. There are two pretty varieties, one with pure white flowers.

Tradescantia rosea, flowers, rose colored, and very handsome; a native of Carolina and Georgia; but quite hardy here and readily cultivated.

Trillium. The Trilliums are a curious and beautiful tribe, very ornamental. The flowers are universally of three petals, and the leaves grow in threes; called by Botanists-*trifoliate*—probably from this circumstance, the name Trillium is derived; being all native of shady woods and swamps. They are cultivated in the common garden soil, and ought therefore to be planted in the American border. I shall enumerate all the known species, some or other of the kinds may be found in all our low woody swamps, or on the borders of them.

T. sessile, native from Pennsylvania to Carolina; flowering in April and May; the flower a dark chocolate brown; very purple.

T. petiolatum, not generally known here; the plant was found by M. Lewis, on the waters of the Kooskoosky; flowers resemble the first species; leaves very much like *plantago major.*

T. pictum, native of high mountains from Canada to Carolina, in bogs; flowers with purple veins at the bottom; berry scarlet.

T. ovatum, native of Columbia River; discovered by M. Lewis; not much known here; flowers pale purple.

T. cernum, native in shady, rocky situations, from Pennsylvania to Carolina, particularly on the banks of the Schuylkill, near Philadelphia; flowers in May; petals white; berries purple. This may be considered the largest of the genus.

T. erectum, native in boggy soil, Pennsylvania to Carolina; flowers in May, dark purple, sometimes white, changing to red, with a red germ; berries almost black.

T. pumilum, native of Pine woods in Carolina; flowers deep flesh color.

T. obovatum, native of Canada near Montreal; flowers dark rose colored, probably white when first opening.

T. pendulum, native of the mountains of Pennsylvania; flowers April and May; petals of a dirty white with netted veins.

T. grandiflorum, on the mountains and rocky banks of rivers, Virginia to Carolina; flowers in May, large, white; berries dark purple.

Veronica spicata, flowers blue, in long spikes, and a very pretty perennial; native of Europe.

Veronica Virginica, flowers white, growing in spikes; and handsome; native on the mountains and hills, in sunny exposures, in many parts of the country. There is a variety said to grow in the mountains in Virginia, with purple flowers, and growing very tall.

Verbena bracteosa, a beautiful little perennial, of low growth, and covered with handsome light purple flowers; native in Kentucky, and the Illinois; quite hardy, and easily cultivated.

Viola odorata, sweet violet; the pride and ornament of the spring; perfuming our gardens with their fragrance; flowers white; native of Britain.

Viola odorata, flore pleno purpurea, the double blue sweet violet requires protection in the winter; but their fragrance and beauty deserve a little trouble; the double white variety is not so well known here, but ought to be introduced. Of American violets there are above twenty sorts; many of them should be cultivated.

Yucca filamentosa, a very stately plant, with spikes of large white bell flowers, growing from six to eight feet high; a native from Virginia to Florida; the plant is easily cultivated, and very hardy.

Dionea muscipula, Venus' fly trap. This little delicate curious plant, with leaves in the form of a rat trap, which spring up and catch the poor flies that trespass upon them. The flowers are pretty large for so small a plant; native of moss bogs in North Carolina, and has not been found, I believe, in any other part of the country.

Bulbous Roots.—I shall enumerate such kinds as are most worthy of attention, and generally cultivated in our gardens; many of them are well known and need little description; but I wish to call particular attention to some of our native lilies, which may be had for the trouble of digging up and planting.

Hyacinth and Tulips, of which florists enumerate hundreds of varieties by the fanciers: they are imported from Holland every year; a choice flower garden ought to be ornamented with them.

Narcissus, several species and varieties.

Crocuses, Crown Imperials, Amaryllis, &c.

Polianthes tuberosa, called Tuberoses, have beautiful sweet scented white flowers, sending up a spike of flowers three feet high, and perfuming the air around them; the roots should be taken up in the fall and kept dry, until May, when they should be planted again; the frost will kill the roots if left out in the garden.

Dahlia, or *Georgiana*. This is a most splendid, showy tribe of flowers, and the florists in Europe enumerated hundreds of varieties, but as the choice double kinds are the only ones worth attention, and as new sorts appear of finer quality, the old kinds are rejected to give room for their new comers. The roots should be taken up, and receive the same attention as the Tuberose roots mentioned before, namely, to plant them in the spring and take them up in November, as the frost will kill them; the root was first carried to Europe from Mexico; hence, America claims their origin. As a few names of some of the finer kinds cultivated here, might be acceptable, I subjoin a list of a few kinds that flowered here last summer as deserving of notice.

Double Dahlia; 1*st gloria florum supreme*, grows taller than any other kind I have seen, about fifteen feet high, flowers very large and double, of a fine rose red color. 2d, *Beauty supreme*, very double, not quite so tall as the former, flowers red, with a little white. 3d, *Purple superb*, a very beautiful double purple, grows pretty high. 4th, *Miller's George the 4th*, this has a very fine rich scarlet color, not quite so tall as the former. 5th, *Sans rivale*, not quite so fine a scarlet as the former. 6th, *Speciosissima*, a fine double purple. 7th, *Camelliflora*, a beautiful double orange. 8th, *Prince Leopold*, a beautful double, dark purple. 9th, *Pulchella*, a double light purple. 10th, *rubella*, a double red. 11th, *French bright yellow*, a lively yellow with reddish centre, very showy. 12th, *Sulphur superb*, a most beautiful and full double yellow, very regular. 13th, *Alata triflora*, rather dwarf, about three feet high, flowers double, and generally growing in threes. 14th, *Princess victoria*, this is a very dwarf sort, growing about two feet high, and producing flowers all over the plant; a very desirable kind. "The roots, when planted, ought to have a good rich border, and the tall kinds ought to have good stout poles, well let down in the ground, to tie up the stems as they grow up, or the high winds would break them down.

Lilies.

Lilium candidum, or common white lily; a well known and ever esteemed inhabitant of all the gardens, esteemed for its long, white, sweet scented flowers.

L. bulbiferum, orange lily, now almost superceded by the next species.

L. tigrinum, tiger spotted lily; native of China, but very readily cultivated and quite hardy. The flowers are very large and beautiful, red and spotted, the inside of the flower having the variety of color of the spotted Tiger; hence the name.

L. superbum, native of all our meadows from Canada to Virginia, a very superb lily; the flower spike often seven or eight feet high, and having from twenty to fifty flowers; a beautiful lily, as it is a native of black swampy soil, it ought to be planted in the American border.

L. Canadense, the flowers are more inclined to yellow, and do not roll back like the former species, in other respects much like it; more frequently found in Canada, but is found as far down as Virginia; same treatment as the former. [A. B.]

L. Catesbæi, a very pretty little southern species; native from Virginia, but more frequently in Carolina, in low sandy meadows. The flowers scarlet, spotted with yellow and brown; probably will require a little protection here from our severe frosts.

L. pennsylvanicum, native of Pennsylvania and Virginia. Flower scarlet yellow at the base, with dark spots.

L. philadelphicum, native in woods and meadows, from Canada to Virginia, a beautiful low plant about three feet high, flowers large scarlet, yellow near the bottom with dark spots; most generally found with one flower, sometimes with two or three, not so frequent; this species may be known from any of the others by the petals ending at the bottom narrow, or as it is called, clawed (unguiculatus.)

Grythronium lanceolatum, denscanis, or yellow dog's tooth, violet; native in woods near the roots of trees, very abundant from Canada to Virginia; flowers early in May; the roots are very small, about the size and shape of a dog's tooth, and not very easy to be found, except when they are in flower. The leaves are curiously spotted.

There are a number of other beautiful native plants that are worthy of cultivation, but I am afraid by giving a larger list, I might intimidate the young gardener. At some other time I may enlarge the list. I hope to succeed in introducing to the notice of our youth, a taste for the cultivation and study of the

beautiful production of our native Flora. On examination of the above list, the American reader will probably be surprised to find that more than three fourths of the beautiful flowers so highly prized in European gardens, are actually natives of his own country, and many of them perhaps growing on his own farm. Many of the kinds destined for the border, which I call the American border, are very highly esteemed in Europe, and can scarce be kept there with all their care. As botany, particularly the medicinal part, should be familiar to all our students of medicine, as well as Doctors of Divinity, and Doctors of Law, and why not to all our youth generally? And here I would particularly remark, *learn the plants by their proper names*; they may seem rather difficult at first, but custom will render them quite familiar. You will then have the satisfaction of knowing that all nations can understand you, as the names are universally known in all countries, and get over the difficulty which often exists of calling the same plant by different names, causing confusion at home, and being totally unintelligible abroad; some of the common technical names in use, are generally invented by the first settlers, or the Indians; rather come up to the universal standard of the scientific names at once, not descend to the common barbarous names of the ignorant; and if you only learn the proper name and character of a plant a day, you will soon acquire a fund of useful knowledge, which the more you are acquainted with, the more you will wish to know. The study is innocent, healthy, and instructive to the mind. To conclude, many of the names of our fruit trees and shrubs are now commonly called by their proper names, such as *Magnolia*, *Azalia*, *Andromeda*, *Rhododendron*, &c. The task is easier than may be generally supposed; and it will raise the American character. A country abounding with Flora's finest gifts, ought to possess a people worthy of it. If any thing I have said, or may say, shall contribute to this desirable acquirement, I shall be amply compensated for having bestowed my mite towards it. If opportunity should occur, and my time permit, I intend to take up the subject of Fruit Trees, and to make a selection of choice kinds for the garden, from the Babel of names, three fourths of which may be dispensed with. A select assortment of valuable kinds *only*, should be cultivated; the same soil and the same care will produce the finer sorts that are required for the inferior.

How to prepare a border, called the American Border for the reception of such plants in the list marked A. B.

1st. The border should face directly to the *North*, the south side screened from the sun by a close board fence. 2d. The soil should be taken out one foot deep and carted away; the border about five feet wide. 3d. Prepare a composition of soil to fill up the border about fourteen or fifteen inches high; get from the low parts of the mountains, rotten vegetable *black mould*, which may be found every where in hollows and near rocks; and about the same quantity of *black swamp mould*, if a little sandy all the better, if not, add to it about one eighth of good clean river sand, and about one fourth of very rotten manure; mix this composition well together by turning it over three or four times; and then fill up the border about three inches higher than before. On the back part of the border may be planted *Rhododendrons*, *Azalias*, *Kalmias*, *Andromedas*, &c., with several other beautiful shrubs from the swamps; when the border is planted it may be covered with the *sphagnum*, or swamp moss, which will preserve the roots from frost, as well as to keep the roots moist. While on the subject of borders, I would advise a border to be kept for plants of a medicinal character only, where all the plants useful in Domestic Medicine may be kept; and let every plant be labelled with the proper name, so as to make every one in the family acquainted with it; this may be very important, lest mistakes should occur, when wanted for use in a hurry. The best labels are made out of pine or cypress shingles; if rubbed over with white lead the name may be written with a black lead pencil when wet, and will last for years.

This border might be either on the east or west side of the garden, about seven feet wide, each kind kept at a proper distance from each other.

MICHAEL FLOY.

New-York, Feb. 1831.

[For the New-York Farmer.]

ART. XXXII.—*The Fire Blight.* By S. REYNOLDS.

Of all the misfortunes that I have experienced in cultivating Fruit Trees, none has been so great as the Fire Blight. This disease always makes its appearance when the leaves are full grown, and not unfrequently when the limbs are loaded with fruit. The leaves upon the branch effected wilt in the same manner as if it had been severed from the tree, and in a few days they die and become yellow; yet they do not fall like autumnal leaves, but seem to adhere with increased firmness. The leaves, the bark, the alburnum, and heart wood, show death, and nothing but death. When dissected and examined with a large magnifying glass I never could discover any cause. This disease, I believe never appears upon very young trees, at least, I have never seen it upon any less than six or seven years old. The first summer it shows itself upon a tree one limb only sickens and perishes; but whether that limb is removed or not, next year others die by the same invisible hand. Now if the bark upon the trunk is examined, it will show fatal marks of the progressing malady, most commonly upon the side bearing the diseased limb. This dying or dead bark soon generates little worms, which tempts the woodpeckers to perforate it with their bills, in search of their favorite food; and many times these poor birds, without being heard in their own defence, have been wantonly shot for thus trespassing and destroying fruit trees.

A few years are usually sufficient to destroy the whole fruit tree, and it dies lamented and without remedy, notwithstanding all our pains and solicitude. 'Tis true, some trees support a sickly and impoverished life for many years, but in the end all become victims to the destroying angel.

In my orchard the apple and pear tree have alone been the subject of this complaint; nor has a single tree that once showed its effects, escaped final destruction. The pear tree is sooner and more frequently destroyed than the apple, and it is quite useless to reset other trees of the same species in the place where these have failed, for they inevitably perish by the same cause. I am confirmed in the truth of these

remarks from a long and attentive observation. About 30 years ago I selected a site for my orchard, containing about four acres. The land was nearly level. Three fourths of it alluvial, and the remainder a dark gravelly soil. The surface was all rich, and equally productive of good crops, and I anticipated no difficulty in growing Fruit Trees upon every part of it.—My stocks were all taken from a nursery raised from the seed; and were, in fact, fine and healthy plants. For several years they all flourished alike; and when grafted continued to grow with rapidity, so that I began to think the reward of my labors near at hand, until the *fatal blight* began to appear upon some of my trees situated upon the upland. These all decayed and perished within fifteen years, while those upon the interval or alluvial land continued, as they now do, to flourish and bear abundantly. Being extremely desirous that every part of this field should support good trees, I caused large holes as big round as a wagon wheel to be dug two feet deep, and filled with a good soil brought from a distance. I now discovered that the sub-soil was a bluish clay, full of small gravel and impermeable to the roots of vegetables; but hoping the bed I had made would prove a preventive, I again planted fine young trees, and for six or more years they grew well; but of late, one after the other has failed, and I expect shortly to lose them all.

From witnessing these facts, I have come to the conclusion that "The Fire Blight" is not occasioned by insects of any kind, as some eminent authorities have professed to believe; for to me it seems improbable that so great an effect should be produced by an enemy so minute as to escape all our senses. Besides, is it not unfair to attribute this misfortune to insects, without being able, even with our best glasses, to detect any of them in the work of destruction? Might we not as well impute it to witchcraft, or some unfriendly demon?

Insects it is true are often injurious to our trees, and to their fruit; but in what instance are they invisible or concealed from a patient research. "The "tumors on the plum and Morello cherry, which in "some districts have operated to the almost entire ex-"tinction of these valuable fruits" are undoubtedly owing to the puncture of an insect, for the sole purpose of depositing an egg, to propagate their species; for if the knotty excrescences on these trees are examined while in their green and recent state, they will each be found to enclose an embryo-chrysalis, similar to the curculio that destroys the fruit of those trees. But where is the mystery or bidden malignancy in all this? Nor can I believe that repletion, the solar rays, or electricity produces this evil; for if either of these causes operated in this case, young trees in the nursery would not escape as they invariably do. I have therefore no hesitation in ascribing the whole misfortune to the nature of the sub-soil. That pears are sooner affected by an unhealthy sub-soil is evidently owing to their having more and stronger tap-shaped roots than apple trees; of course they quicker approach the sour impassable clay, where if they absorb any thing it is a deadly poison to the branches with which they communicate; and this accounts for the fact, that trees are usually several years decaying before they perish with this disease, as all the roots do not at first come in contact with the evil. If my conjectures are right, in planting an orchard, we should pay more attention to the sub-soil than any other circumstance; for when that is bad, no subsequent treatment can supply a remedy.

S. Reynolds.

[For the New-York Farmer.]

ART. XXXIII.—*Retrospective Criticism.*

Sir—In the December number of the New-York Farmer, page 295, under some editorial remarks in reply to "D." of Saratoga County, you say, "For the encouragement of D., we would state the following. One of the Horticultural Societies, recently formed in this State, was set on foot and put in a train of formation by one individual, who was unknown as the mover, but rather considered as one who readily advocated the undertaking."

In behalf of several Horticultural friends, readers of the New-York Farmer, yielding in zeal to none in favor of Horticultural Societies, you are asked to publish this, and to name the Horticultural Society above alluded to, with the 'individual,' whose unseen efficiency has been crowned with such signal success.

Your Journal, Sir, is increasing in interest and value. The last, No. 12, for 1830, is the best we have seen. 'W.,' your Middlesex correspondent, furnishes a good article.* Your extract from Loudon's Magazine, on the generation and destruction of insects, is excellent; and the more so, because it indicates, in you, a mind open to discussion of facts. 'J. B. G.,' following up the remark, has well chastised Mr. Wilson. 'D.' is perfectly right in estimating the 'importance and want of Agricultural Associations in the state of N. York.' 'D. T.,' as usual, is instructive and amusing; and 'N. N..' in his exposition of the principles of government, has told a very amusing Rat Story, which, withal, is as instructive as it is amusing. Passing over other things, the last number of your volume of last year, is a very good one, and we look forward to the forthcoming, with pleasing anticipations, much dispo sed to wish you success.

Several Subscribers.

Jan. 12, 1831.

Remarks.—The 'individual' alluded to was either the neighbor and friend of him who penned the above article, or it was himself, or perhaps both. We had the information, however, from his friend. To encourage 'D.' was our only object in making the remark; and, therefore were not particular, neither laid we any stress on the fact, who was the individual.—*Ed.*

[For the New-York Farmer.]

ART. XXXIV.—*Fattening Hogs with boiled Food.*

By A Scientific Farmer.

The remarks of Mr. Buel, on the advantages of cooking the feed for fattening Hogs, in the No. of your Journal for Dec. 1830, certainly merits more attention than the subject will be likely to receive. So long since as in 1803 or 4, I had practical experience

* He may find, however, and probably will after a few years, that his plan of *Green Dressing* will not succeed so well, because something else will be wanting. Let him then strew quick lime on the clover, wet with dew, and turn it in, well whitened with lime. I have tried this. A. S. F. & G.

of this benefit in fattening what was then called a very mammoth of a hog, neat weight of meat about six hundred and fifty pounds.

After having slain my stock of pork for a farm, late in December, on riding by a neighbor's, three or four miles from home, in the eastern part of Columbia County, I discovered a very large framed hog capering around the fields, his hair sleek, and concluded he had just escaped from the stye. On giving notice, the owner told me the story of this hog; which was that this had been the second attempt to fatten him, and that the hog "would *only grow, and not fatten*," for which reason he had concluded to give him another wintering, and had just turned him out of the stye, having done so the fall before. On going to examine his other hogs, I found they had been supplied with plenty of good sound corn in the ears, and cold water from a running brook. I tried to persuade the owner to adopt my plan with this hog, and feed him on corn meal boiled, but he soon stuck up his nose at the idea of making "*hasty pudding for his hogs!*" As my effort to persuade him was ineffectual, he finally made me an offer of his hog, to try the plan myself, confident, as he said, that I would find it altogether unsuccessful.

To make the story as short as possible, I bought the hog, for less than what the owner called the value of the corn he had eaten, put him into a warm stye, partitioned from a horse stable, and the next day commenced feeding him with hasty pudding, as my neighbor called it, made of corn meal and a mixture of boiled potatoes, with now and then some pumpkins. This was done in a large kettle set in an arch, one boiling of which would last him a week. The hog soon began to fatten very fast, and to satisfy my neighbor who often called to see him, I kept an exact *account current* of his feed. He fattened astonishingly. On the last of the next June, having kept him very cool over night and without food for 18 hours, I had him slaughtered before sunrise; and after hanging a little time, the meat cooled by throwing on cold water, cut up and thrown into pickle with the hams and shoulders. On the 3d of July I sent the meat to Albany by a trusty kind man, just as it was laid down in a half hogshead. He sold the meat readily, and brought me back on the evening of the 4th of July, 640 odd York shillings for so many pounds of meat from this hog, sold out of the pickle. This enabled me to close my account current, the result of which was a clear profit of about one third of the sum he produced me. These facts were all perfectly notorious at the time—for at that time this was a monster of a "porker," as they say in Kentucky; and I think was published in some newspaper; but I do not know of any one except myself, has persevered in this plan of feeding, or that the experiment had any permanent effect on others. The farmers here have considered the perfection of *pork making* to consist in plenty of good sound yellow corn, and clear cold water, and so they will for aught that I can discover, judging by past experience. Yet you may, if you please, publish this, for, possibly some one may not be too wise to take a hint, if hint this long story may be called. For thirty years I have fattened all my pork on cooked food, and am confident that it has been done with one half of the quantity of corn that would have been required, fed raw, on the cob. It is more than ten years since these facts were all communicated to Mr. Buel, the writer of the Albany County Agricultural Report, by

A Scientific Farmer.

[For the New-York Farmer.]

Art. XXXV.—*Peach Trees.* By D. T.

The subject of *the Yellows in Peach trees* has been discussed and illustrated by *N. Darling* in a clear and logical manner. He has doubts of *W. Prince's* theory, however, (which I hold to be the best,) and if it be allowable to repeat facts published within the last year, I would add some remarks.

Previous to the year 1824 I had never seen a peach tree with the *yellows* in this part of the State of New-York. The ancient trees standing in the old Indian clearings had escaped untouched by this malady; and the *Egeria exitiosa* had only diminished their vigor by mechanical injuries. But in that year I planted some trees from one of the *Flushing* nurseries; and observing some of these to be of feeble growth, without suspecting the cause; and fearful of losing kinds so rare and *high priced*, I budded some into *a most thrifty stock* in the nursery, and some into *thrifty trees* in my peach orchard. On the young stock two buds *took* but never sprouted; and *in less than a year that stock dwindled like the tree whence the buds were taken, and died. Every tree in my peach orchard so budded, has been long since dead; and no other peach tree has died in that orchard.*

The experiments of *N. Darling* have given a different result; and it would be hard to account for this difference. However, I will detail a few more particulars.

In the few trees that I have seen with the *yellows*, the *virus* appeared different in degree. Some perished in one season; some in two; and I have a large tree in my fruit garden, which has stood there seven years, with most unequivocal symptoms of this malady, which apparently might grow seven more, had I not determined on its extirpation. A scientific neighbor, who procured cuttings, from one of my diseased trees, assures me that by continuing to bud from one thrifty stock to another, the *poison* seemed to be diluted, and a healthy action in the variety has at last prevailed.

I consider *the yellows in peach trees* strictly analogous to the gold or silver stripes, and gold and silver spots which *beautify* many ornamental shrubs. Such shrubs are observed to be more *feeble* and *tender* than the same kinds with green leaves. The following extracts from *Professor Bradley's* Treatise on Gardening, written more than a century ago, detail some interesting experiments, agreeing with all the preceding statements, except that more of his plants recovered, and that none died.

"I lately observed in a gentleman's garden near Bristol, some plants of the *Brazil* Jasmine, which were grafted upon the common jasmine whose *leaves were strongly blotched with yellow;* the *Brazil* jasmine by this means is so extremely tinged with yellow that there is hardly any green to be found in its leaves."

"I find by experience that when stripes of *white* or *yellow* appear in the bark, there is no remedy; or in other terms there is no possibility of ever getting *the*

stain out of the plant; though we were to inarch twenty healthful plants into it, and their juices were to circulate through it for twelve months; for all our return would be to find that it would infect and tinge the healthful plants with its *distemper*."

"We find by inarching the striped jasmine into the plain or common sort that the malignity which causes the whiteness in the leaves of the first, mixes itself with the juices of the plants it is engrafted upon, and their leaves become tinged in some places with the white color."

"If we put a bud of the variegated sort into a plain jasmine ten or twelve feet above the ground, the poison will reach the branches next the root."

"Mr. Greening told me he had seen some Ash trees that had been inoculated with buds of a striped ash; and that *though the buds had not sprouted*, the shoots of the budded trees before the inoculations became striped."

I have in no instance seen this *pollen* communicating the malady to other peach trees. Mine which perished were small, and soon gone. My large tree may be too slightly affected to injure those adjacent. I have been careful not to plant any peach tree on the spot where a diseased one had stood. D. T.

Greatfield, Cayuga Co. N. Y. 2mo. 7, 1831.

[For the New York Farmer.]

ART. XXXVI.—*Remarks on the Curculio.* By D. T.

I acknowledge the politeness of W. WILSON in noticing my request in regard to the *Curculio;* and the candor he has shown on that subject does him much honor.

I have been endeavoring to collect some materials for a paper on this formidable insect, but these are far from being completed. It may be more useful to mention *the little* that I do know, however, in this stage of the inquiry, as it may stimulate others, than to wait till I could speak with more confidence.

The *3d volume* of SAY'S ENTOMOLOGY, I have not examined, and know not its contents; but I suspect that our *Curculio* is exclusively *American*, and that we shall not find it in any European work. I have doubts also whether the insect described by W. Wilson, as perforating a peach stone, is the same as those which prove so destructive to our smooth skin stone fruit.

Soon after the blossoms are fallen from the plum trees, we found our insect in considerable numbers among the branches; and on jarring the tree, they commonly drop, pretending to be dead. Several of my friends assure me that they have watched the movements of the female; that her manner of depositing the egg in the young fruit is similar to that of the *Curculio nucum* of Europe; and that while engaged in this business she is not easily shaken from the tree. They have also removed the *nit*, and then the fruit healed with a scar. These worms when found in fruit nearly ripe, are much larger than those described by W. Wilson. On conferring with several persons who have examined our insect in its winged state (for I have no specimen) we think its length is one fourth of an inch. The color is dark brown.

The worms found in pears, plums, and apples were considered as the same species by Dr. TILTON.

It is said that the worm escapes from the fallen fruit to the ground, and there remains during the winter.

The fruit of an old pear orchard in a pasture near Philadelphia, had been much infested by worms. At last the proprietor had it ploughed late in Autumn or in Winter, and scarcely a worm was seen the succeeding year. This effect was ascribed to the ploughing which turned the larvæ up to the frost.

As *an entomologist*, I am solicitous that this insect should be figured and described, and its manners well understood; but as *a cultivator of fruit*, I have no anxiety on the subject. I want no *premium* to be proposed for its destruction, because I consider the *problem* to be already solved. *One of my friends has had plentiful crops of plums for eighteen years in succession by keeping hogs in his fruit garden;* yet trees within fifteen rods of that garden, have annually lost all their fruit by the *Curculio.* D. T.

[For the New York Farmer.]

ART. XXXVII.—*Remarks on the Use of Salt Hay.* By A FARMER.

MR. FLEET, In the last number of your paper there are some remarks upon "Salt Hay," extracted from a Massachusetts publication, and followed by a short note of your own. After assenting to the opinions of the Massachusetts man, you request information from some of your Long Island readers. I am one of that class, and have moreover had something to do with salt hay for twenty-five years past. It will not therefore appear very arrogant if I assume to know something about the matter; nor must you feel hurt if I venture to say that your opinions relative to it are susceptible of correction. The article in question when cut at a proper time, and cured without being tided, or much rained upon, makes an excellent provender. Used in combination with straw and bottom stalks, it does more for horn cattle, than would the same weight of English hay. Having due reference to the position of the moon, salt hay may usually be secured without damage from the tide; and a man will cut and rake a wagon load for every day he works.

Another important recommendation to this fodder is, that the ground on which it grows cannot be impoverished. You are therefore spared the great trouble and expense of manure—you go on from year to year, and from age to age, cutting full crops of hay; and when you, and your children have done, your grand children find the productive powers of their salt meadow unabated.

You assert that *salt* will answer the purpose of salt hay. If you had said, that it will answer the purpose of *the salt which is in the salt hay*, I should have agreed with you; but when you substitute it for *nourishment*, I must be allowed to say that you are mistaken. Salt hay is nutricious, and is proved to be so by the condition of animals fed upon it.

Where your New-England man goes to find farmers, who "spend half the Summer" in getting this kind of hay, I am at a loss to conjecture; nor do I believe that we shall do him injustice, if we take him at his word, and conclude that he is meddling with a subject which he does not understand.

There is one further consideration in favor of this kind of hay, which, though not of the first importance,

ought not to be overlooked—it keeps well in stacks exposed to the weather, and thus spares expense in building. A barn costing six hundred dollars, will not cover more than forty or fifty tons of English hay. The rent of this barn will therefore be equal to a tax of ten or twelve shillings per ton upon the hay—to say nothing of the increased trouble in stowing, at a time of year when labor is high, and every farmer has a little more work on hand, than he knows how to do in season. I wish you to infer from this remark, that it will not answer to stack English hay out of doors—at least, it will not, here upon Long Island.

If these informal observations should be thought deserving of such honor, you may, if you please, give them a place in your next number. A FARMER.

Feb. 11th 1831.

Remarks by the Editor.—Our respected correspondent has pointed out some very decided benefits of salt hay; but we still think that salt, in a great measure, is a substitute. By this we do not mean that cattle can live on salt alone, as they can on salt hay, but that its beneficial effects in the stomach makes their other food produce additional nourishment. We by no means consider it as settled that the quantity of salt in the salt hay produces the same effect, as the same quantity taken uncombined. When substances are combined their qualities are more or less neutralized or changed. Experience alone can ascertain their relative effects. Salt, we should suppose, would be less expensive and more convenient to many Long Island farmers than salt hay. It is universally acknowledged, we believe, that milch cows kept principally upon salt hay are very seriously injured for milk. Is it not a fact that many Long Island farmers injure their cows in this way? We believe too, that neither horses, cattle nor sheep, will touch salt hay in the season of pasture; but they will eat salt voraciously either clear or dissolved and mixed with bran. In consequence of using salt hay in winter, have not the Long Islanders very generally been led to neglect giving salt in summer, the very season when cattle need it the most? Do they not, by using salt hay, make their winter fodder too dry and astringent? and in summer, by neglecting to give salt, render the green grass too laxative in its effects? We have never heard of *any* ill effects from the use of salt; but if observation had been more frequent and the facts recorded, we are well persuaded that much injudicious management in the use of salt hay would be manifest.

We should be pleased to have from the writer of the above, or from other of our Long Island friends, still further information, particularly on the effects of substituting, in winter, salt hay for succulent roots.

[For the New-York Farmer.]

ART. XXXVIII.—*Remarks on the Curculio.*

By J. B. G.

DEAR SIR—I for one, among your numerous readers, was much pleased with the article on the Curculio, which appeared in the last No. of the Repository, from the pen of Mr. Wilson. When Mr. W. occupies the columns of the Farmer with such information, he may be said to confer a rich benefit on the public; and I hope he will continue his remarks on those other insects which he has promised to do, though, if convenient, in language less scientific, (I allude to extracts,) so as to be better understood by the mass of horticulturists. I must confess myself unable to identify any insect with his description of the curculio.—The insect that has caused the destruction of our fruits has evidently escaped his description; but to settle all further doubts concerning it, I send you the enemy in person. Could you have a cut taken it might be some assistance toward its history. This is undoubtedly a very different insect from any of Mr. W's peach-stone riddlers, and is the same, described in part, by your worthy fellow-citizen S. L. Mitchill, in the 6th vol. of the American Farmer, p. 183, in answer to N. Goodsell, Esq. Dr. M. says, "when you brought me, a few days ago, green and growing plums that had been invaded by an insect, I gave perfect attention to the discourse you made, and the demonstrations which accompanied it. You gave me the most conclusive evidence that the skin of the young fruit was divided by a sort of semi-circular incision or scratch; that within or beneath it an egg or nit was deposited; and that when the hatching process had gone far enough, there was a worm or larvæ which had eaten its way to the surface of the stone, or woody box containing the kernel. Thus, there was proof enough that the integuments had been penetrated, the rudiments of the destroyer inserted, and in several of the specimens, the grub or caterpillar was actually devouring the pulp. As soon as I expressed a desire to know what the *parent insect* or "imago" was, you procured the creature, which you assured me had laid the egg, *shy, retiring, and difficult to catch;* but, which, you had nevertheless, by your perseverance succeeded in seizing and securing on the tree, at Harlaem.

"It instantly became a matter of business, or indeed of duty for me, connected as I am, with Agricultural and Horticultural Societies, to determine the Zoological character of the animal with whose history you had made me so far acquainted.

"It belongs to *Tetrameres*, or *Portebeco;* a section of the 'Coleopterous order,' having the forepart of the head lengthened into a sort of a muzzle mouth or proboscis, bearing the antennæ or feelers.

"The genus might seem, on superficial examination, to be the Bruchus, whose females are noted for laying an egg in the germ, while yet tender and small, of liguminous plants, cereal grains, palm, coffee, and several other seeds, where it feeds and undergoes its metamorphosis; forming on its exit the circular holes which we see in lentils, and more especially in peas. A more correct judgment, however, refers it to the tribe of Curculio, *Charanson*, or *Weevil;* and to that section comprehending the individuals, whose antenæ or feelers are situated near the extremity of a short trump. They had scarcely proceeded further than this point in the inquiry, when you brought me, from a neighboring plantation, a few miles out of town, the twigs of a cherry tree bearing fruit, assailed and injured in a similar manner, by the semi-circular gashes or wounds; and with it the living author of the mischief. And now we know the enemy that mars our expectations of enjoying tasteful fruit. I expect you and them to prosecute researches, until all its manners and habits shall be known, and a mode of preventing its ravages shall be detected."

Dr. M. further says, "the *Curculio* before us is not one of the *twelve* new, and until then, undelineated

kinds contained in the Entomological manual of insects published in 1797, in Latin, at Nuremberg, by my late correspondent, the distinguished Godfried Christian Riech, Professor, &c."

I have no hesitation in saying that this is the insect, and the *only insect* worthy of notice, as an enemy to the *fruit*. It deposits its egg in the apple, pear, cherry, plum, apricot, peach, nectarine, &c., preferring the plum and nectarine, destroying them in this neighborhood, without any exception worth mentioning; and many hundreds, I may say millions of bushels of apples, pears, peaches, &c, have the same fate annually from this apparently insignificant insect.

Yours, &c. J. B. G.

P. S. I notice a trifling error in my last communication—*stool* for *tool*.

Remarks.—We showed the specimens to Doctor Mitchill, who thinks they are a little larger than those described by him in the above communication. They answer, however, to the description, with the exception of not having the antennæ, which in all probability have been broken off in preserving and transmitting them. In order to have had a cut of them, they should have been preserved more in their natural position.—*Ed.*

ART. XXXIX.—*Remarks on Farmers' and Gardeners' Style of Writing.* By the EDITOR.

Owing to the sway of custom, the ability to put thoughts on paper in a style suitable to interest and instruct the public, was almost universally conceded to those who were far advanced in scholastic literature. But happily for the present age, the right of wielding the pen is, like liberty, more and more generally acknowledged to be a privilege belonging to all classes of citizens. As unrestrained expression of opinion is the only imperishable foundation of governments, so the unrestricted contribution of facts is the only guarantee of the correctness of theories, and the permanency of current principles in science.

If the principles of good writing are derived from the stamps impressed by nature, the only exclusive prerogative of the scholar is to collect general rules, and then to decide when they are complied with, and when violated—but not to debar any class of individuals from exercising and developing their mental powers. If so, then he who holds the plough, and he who handles the spade, have a right, and are under obligations both to their Creator and their fellow men, to use the pen. The foundations, then, of good writing having their origin in nature and not in the schools, it may be proper to inquire if the situation and circumstances of farmers and gardeners are favorable for the cultivation of a talent for writing. In arriving at this point it is requisite to consider what are some of the qualities of a good style. A fundamental one is clearness. To acquire this clear and distinct ideas are necessary. On the supposition that the writings of farmers are principally confined to the statement of facts derived from their own observation, it is plain that the productions of their pens will naturally possess this quality. The whole effort of their minds will be to make themselves understood; and when their unostentatious character is taken into view, it is easily perceived that their style, though unornamented, will be clear and concise. Their constitutional vigor and soundness of intellect will give strength, another excellence of style. This will be apparent when we compare their circumstances with those of professional men. The latter, when obtaining an education, were, at stated periods, compelled to exhibit the productions of their pens. In order to do this, the mind was driven in quest, not only of ideas, but also of a subject. Hence the aid of imagination is courted; and owing to an unfavorable state of the mind, or to deficiency in mental discipline, the ideas impress the mind more or less faintly and confusedly, and consequently the language is obscure, and the style enfeebled. Thus habituated, and frequently compelled in the discharge of his professional duties, to write in a lassitude of both mind and body, the man of education is in danger of acquiring a style replete with words, but not with matter of fact. The agriculturist, on the contrary, confines himself to the narration of facts, and the description of operations that have occurred before his own eyes, and often through his own agency. In all these he takes a deep interest, and, consequently, the language he uses will be in accordance to the clearness of his views, and strength of his emotions. The advantages, then, which he has over the professional man, are, that he writes only when his mind and feelings are favorably excited; and every scholar knows that pleasure and success in writing are intimately connected with these circumstances. It only requires practice and care, therefore, on the part of farmers and gardeners, leading to a ready command of words, and an appropriate use of them, in order to acquire a manly and handsome style. The acquisition of this, however, will be very much expedited by studying, and becoming familiar with, the beauties and defects of written compositions.

We find the following compliment to practical gardeners, in the preface to the last volume of Louden's Magazine:

"Something has been said by a learned author, Sir Henry Steuart, in his *Planter's Guide*, of the ignorance of gardeners generally: but that they are as a body, well informed in both the theory and practice of their profession, and very well able to communicate their information to others, the manner in which this magazine is supported by their contributions is a decided proof. The Essays on Cottage Gardening (Articles III. IV. and V., p. 167. to 208.), written in competition for certain prizes which we offered and have awarded. These essays are composed by gardeners who have had scarcely any education beyond what they have given themselves; and the essays published are only three out of ten, which were all nearly equally well written. We might refer to many other articles in this volume as proofs of the general intelligence of gardeners; but having mentioned these essays, we will limit our remarks to them, and ask any man, however learned or scientific he may be, whether any thing can be more complete and systematic of its kind than the fourth of these essays? We by no means intend to flatter gardeners, so as to render them content with the knowledge which they already possess; we only wish to stimulate them to make every exertion to raise themselves to the highest possible grade in their profession. We must also be allowed to say, that the more our acquaintance with gardeners is increased, in consequence of conducting this Magazine and the *Ma-*

gazine of Natural History, the more we are astonished that men with so very defective a school education as is at present generally obtainable by the class of society to which the parents of working gardeners belong, in Scotland, as well as England, should have been able to effect so much by reading, by observation, and by attempts to commit their ideas to writing. This fact shows that a very considerable degree of mental cultivation is perfectly consistent with continued bodily labour; and it enables us to look forward with confidence to a time (we trust not far distant) when all mankind shall have become intelligent and enlightened; and when, in order to forward this desirable state of things, a degree of school education to children shall have become a necessary of life."

In our next we will resume the subject, and point out some of the rules for improving the style of writing.

[The letter which follows was sent to, and read before, the Horticultural Society of Albany, and by a unanimous vote resolved to be sent to the New-York Farmer for publication. We have only time to say, that its perusal has added to our enthusiasm in the cause in which we are engaged.—*Ed.*]

[For the New-York Farmer.]

ART. XL.—*Horticultural Societies.* Letter from ALEXANDER WALSH to JAMES G. TRACY, Corresponding Secretary of the Albany County Horticultural Society.

Lansingburg, November 1830.

DEAR SIR:—I was informed some time since, that the Horticultural Society of Albany had placed my name among those constituting its committee of correspondence. An earlier acknowledgement of the honor thus conferred upon me was due to the Society, and would have been tendered were I not compelled to yield precedence to other concerns less valuable in my view, but to defer which I was not at liberty. The pride excited in me on the occasion of the notice taken of me by the Society would have been still higher than it is, were I not sensible that the little merit to which I can lay claim has been overrated.

I avail myself of a temporary relaxation from my usual avocation to indulge in observations on a subject, which although not connected with my regular or ordinary pursuit, is yet held by me in high regard. The knowledge acquired by individual Horticulturists in this State, is undoubtedly considerable. There is, however, wanting a combination of action, and correspondence of sentiment, so essentially necessary to general intelligence and utility. It is not only the highly cultivated mind that can bestow interest on the subject; we are all labourers in the great garden in which wisdom more than human has placed us; the humblest digger in it may possibly add something, although but a mite, towards the maturing of nature's plan, the perfection of a science indispensable to human happiness, so supereminent that professions claiming superiority, are, in many respects dependent on it. The healing art owes no small share of its power to the laborious research of the botanist: the gardener and farmer are the pioneers of the mineralist: the sacred desk finds, in the reflections that arise from the cultivation of the earth, materials to enforce and elucidate the sacred truths. Its minister, raising his eyes to the starry heavens, invokes the attention of his audience to the myriads of worlds suspended in ether, as evidences of the existence of that omnipotent power, whose invisible hand directs them in their course; but, as if this were insufficient to produce conviction, or too far removed from human view, the preacher turns his eyes from heaven's high place, lowers them until they fall on the planet we inhabit, where man, the lord of all that moves thereon, partaking even of a portion of divinity, stands and moves erect, the image of his God.

The portion of knowledge conferred on the brute creation, as necessary to their support, was given at once, and admits of no improvement. The house of the beaver has undergone no change in its architecture—it is now as at first, unchanged in shape, size, or convenience. Man alone has the capacity to improve and to alter every thing, so as to suit every change and purpose. The capability to improve is then worthy of man's special regard, and is more particularly the concern of those engaged in the raising of plants, and the sowing of seeds; for these pursuits are not only the most natural, but also the most necessary.

Our country is comparatively new, its resources and capabilities but imperfectly explored or unknown; even the immediate tiller of the soil knows not the wealth that its surface produces, or is capable to sustain. For this there is a remedy within our reach, and it is worthy of the citizen and the philanthropist to apply it.

It will not derrogate from us as a nation, to take lessons from other countries, where there is aught worthy of our imitation or adoption with which we are unacquainted, or which we have not practised; it will do us honor if we come up to them in skill; it would be still more to our honor, should we outstrip them by our improvements.

The Horticultural Society of London is a remarkable instance of industry and intelligence. The British people, on other occasions sufficiently tenacious of personal rank and distinctions, have on this submitted to the equality which nature recognizes; rank, wealth, and talent, the lord, the mechanic, and the laborer, unitedly, constitute more than 3000 members. By their members and agents, almost every portion of the globe contributes to increase the stock of plants and seeds; these are cultivated in the grounds of the Society, and distributed throughout the island and the colonies, and with an honorable liberality, sent into various foreign nations, our own partaking of this noble generosity. While we should be grateful for such and all similar kindness, it is sufficiently evident that the benefit to be thus derived must continue too limited for our wants, and too slow in its progress. We must set ourselves to work at home, if we would arrive at any extensive degree of usefulness.

The cultivation of indigenous plants deserves a first place in the consideration of every people. The principle applies forcibly to our country, where owing to its great extent, variety of clime, and general fertility, the diversity of products is so extensive. The great facility of communication daily on the increase, removes every difficulty that nature would oppose to the transmission of plants, flowers, and seeds to any of our Horticultural Societies, where a scientific ex-

amination of their quality, or a practical experiment on their growth and produce, could best decide on their value, and the propriety of recommending their general cultivation. This should not, however, be acted on to the exclusion of exotics, few of which of any country would not find a congenial soil and climate in the United States. No country has an opportunity equal to ours, for collecting valuable exotics at so cheap a rate; our commerce is co-extensive with every sea; our merchants are intelligent and enterprising, that no port or haven is left unvisited by their ships.

What multitudes of sources have we to transplant to our country whatever is valuable in other climes? Every merchant should be united to our associations, every commander of a sea vessel, whether national or private, and be an actual or an honorary member of our societies; through them, in a few years, could be collected such a variety of exotic plants, vegetables, flowers, fruit, and seeds, as no one nation has ever owned; and that no nation but ours is capable of collecting and naturalizing. Horticulture and Botany should in some degree enter into the education of children in all our primary schools; where practicable, small allotments of land should be attached, that boys might have practical illustrations of the theory. By parceling the ground among the young students, and holding out premiums for superior cultivation and produce, a most useful rivalry might be excited. One or two hours thus daily occupied would soon tend to the promotion and preservatien of health, and usefully relieve the tedium of unvarying application to letters.

Every college and extensive seminary should have its professorship of agriculture, horticulture and botany, with its garden for practical illustrations and experiments.

County societies should be established, with funds and land to pay lecturers and employ laborers. A horticultural society has been organised in our County, from which it is expected great benefit will result.—The anniversary of this association is fixed for the 10th of September; it would be of much importance if the annual festivities of the societies in this State, would be at such different periods that delegates might have an opportuoity of attending:—say, New-York the 1st, Newburgh the 5th, Albany the 7th, and Rensselaer on the 10th of September; in this way extending the Hortulean wreath to our new formed branch, and at once add it to Flora's garland. The rapid facilities of our river communication will afford us pleasing opportunities for these civilities, and the trifling remove from our river to the *great canal*, will not damp horticultural zeal to prevent a trip to our sister society of the western district.

Among our periodical literature we have the New-York Farmer and Horticultural Repository, the New-England Farmer and Horticultural Journal, the American Farmer, the Southern Agriculturist, and the Western Tiller;* all of which are doing much towards increasing a taste for the cultivation of the soil, but their circulation is too limited, and measures should be taken to have them better known; our Horticultural and Agricultural Societies ought to pay part of their premiums in these valuable publications.

To complete the great scheme of improvement, an annual convention to consist of County delegates, should be held alternately in each of the four great districts of our state; it would be in the power of such an assembly to provide for a state school, where horticulture in all its departments, would be taught theoretically and practically.

Out of such a system a taste for the useful and the ornamental would gradually grow, until not only the gardener and farmer, the professional florist and the nurseryman, but even those, who, like the writer of this, are engaged in different pursuits, would become from choice, or, perhaps, because it was the fashion, gardeners and botanists; until every dwelling would have its garden, its parterre, and its nursery, until our country would present but one grand scene of all that would be agreeable to the taste, or fascinating to the eye.

In my circumscribed sphere, I shall not fail to contribute to so happy a result.

Yours, very respectfully,

ALEXANDER WALSH.

MR. JAMES G. TRACY,
Cor. Sec. Albany Hort. Society.

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* Since the above was written, the Genesee Farmer has been commenced at Rochester.—*Ed.*

ART. XLI.—*List of Premiums prepared and awarded by the Inspecting Committee of the New-York Horticultural Society, Dec.* 28, 1830.

FRUITS.

Nicholas Saltus	for the best White Grapes
Nathaniel Prime	" black do.
Wm. R. Cooke	" native do.
Charles Oakley	" Early Peaches
John Groshon	for the best Lemon Cling (seedlings)
Nicholas Saltus	" Late Peaches
Wm. R. Cooke	" Apricots (free stones)
Charles Oakley	" Nectarines (red Roman)
do.	" Green Gage)
Alexander Smith	" Pears (summer and winter)
Francis Cooper	" Gooseberries
George Still	" Raspberries
Thomas Coady	" Strawberries

VEGETABLES.

George Still	for the finest Egg Plants
do.	" Early Beets
do.	" Celery
Thomas Coady	" Peas
do.	" Lima Beans
Wm. Law	" Cauliflowers
do.	" Brocoli
do.	for the earliest Cabbage
James Mathewson	finest Coss Lettuce

FLOWERS.

Wm. Neale	for the finest Tulips
do.	" Pinks
Wm. Prince	" Carnations
Wm. R. Cooke	" Hyacinths
Wm. Prince	for the greatest variety of Roses
Wm. Wilson	for the finest Boquet from the open ground

The Committee recommend that extra premiums be awarded to the following persons:

Wm Law	for the best Early Cucumbers
do.	" " Potatoes
Mrs. M. Winter, Flushing	for Gooseberries
Wm. Neale	for blanched Rhubarb
Michael Floy, for Roses, and the best collection of Cut Plants from the Greenhouse	

ART. XLII.—*List of Premiums of the New-York Horticultural Society prepared for the year* 1831.

FRUIT.

Grapes, for the best and heaviest two bunches white grapes, raised in open air			$2
Do.	do.	do. under glass	do.
Do.	two bunches black or red, raised in open air		do.
Do.	do.	do. under glass	do.
Peaches, for the best	6 Early Freestones		do.
Do.	do.	6 Late Peaches	do.
Nectarines	do.	6 Freestones	do.
Do.	do.	6 Clingstones	do.
Apricots	do.	6	do.
Plums	do.	6 Green Gages	do.
Do.	do.	6 of any fine variety	do.
Pears	do.	6 summer	do.
Do.	do.	6 winter	do.
Apples, for a new seedling			do.
Cherries, for the best pound			do.
Gooseberries	do.	dozen	do.
Currants, for the best quart new variety of superior size—red and white			do.
Raspberries, for the best quart superior sorts, red and white			do.
Strawberries, for the best quart			do.
Melons, musk	do.	and earliest fine framed	do.
Figs	do.	six	do.

VEGETABLES.

For the earliest brace framed Cucumbers, raised not later than the last Tuesday in April			$2
Second best	do.	do.	$1
Egg Plants, for the best pair			$2
Beets,	do.	six earliest long blood	do.
Peas	do.	quart in pod, early	do.
Beans, for the earliest	2 quarts in pods—kidney beans		do.
Do.	do.	1 quart shelled, Lima beans,	do.
Cauliflowers, for the best	2 Heads, early		do.
Do.	do.	2 do. fall	do.
Brocoli	do.	2 do. Cape	do.
Do.	do.	2 do. any other kind	do.
Cabbage	do.	2 do. earliest and heaviest	do.
Do.	do.	Savoy—fine sort	do.
Sea Kale	do.	bunch	do.
Asparagus	do.	and earliest forced	do.
Lettuce	do.	2 heads Cabbage	do.
Do.	do.	2 do. Coss	do.
Celery	do.	6 do. the season	do.
Rhubarb	do.	12 stems blanched, heaviest	do.

FLOWERS.

For the best	Polyanthus		$2
Do.	Auriculas		do.
Do.	Hyacinths		do.
Do.	Piccotees		do.
Do.	Tulips—best twelve		do.
Do.	Carnations		do.
Second best	do.		$1
For the best	Pinks		$2
Do.	Roses—best twelve sorts		do.
For the greatest variety of hardy perennial herbaceous Flowers		First premium	$4
Do.	do.	do. 2d do.	$3

Seedling Pinks, $2
Do. Carnation, do.
Do. Auriculas, do.
Do. Polyanthus, do.
} *All to be considered by the committee of such quality as are deserving premiums.*

Best native plant, not heretofore cultivated in the garden $2
For the best new and beautiful exotic introduced do.

☞Extra premiums will be awarded for Vegetables, Flowers, or Fruit, that may be deemed rare, or of superior excellence in kind or quality.

The Committee recommend that notice be given, from time to time, as to the days when shows of various kinds of Flowers, or early Vegetables shall be held for premiums, as the season advances.

THOMAS HOGG, *Chairman*

WM. WILSON, | DR. IRELAND,
WM. NEALE, | JOHN J. PALMER.

WM. R. COOKE, *Rec. Sec. So.*

[We have received a neatly printed pamphlet, containing the Constitution, &c., of the Rensselaer County Horticultural Society. From the first moments of this Society, our anticipations of what it would do were very favourable. So far they have been fully realized. We have only time to make the following extracts.]

ART. XLII.—*The Constitution and By-Laws of the Rensselaer County Horticultural Society.*

Objects of the Society. To stimulate industry, directed in its efforts by Art, Science, and Philosophy; to observe facts and to communicate them; to excite a generous competition; and finally to make Horticulture at once a source of elegant amusement, of domestic and social happiness, and of profit, are among the objects of Horticultural Associations. It has been supposed, for some time, that among the intelligent and enterprising cultivators of the soil of this County, a disposition prevailed favorable to the experiment of an effort. We are about to make this experiment; for which purpose has been formed and organized, *The Rensselaer County Horticultural Society*, under a Constitution and By-Laws, to which all that feel friendly to its objects and purposes, are invited to add their signatures. The organization is nearly completed; the officers elected to serve one year; and we are assured that those persons most competent to form an estimate of its prospects, that about 100 signatures may be obtained in Troy alone.

That whatever increases the variety and abundance of the production of the *soil*, is a public benefit, all men admit. But that, in the same ratio as this abundance and variety are extended by skill and science, are both *land* and *labor* made more productive, seems either to have been questioned or the fact too generally overlooked. Horticulture, stimulated by an effort such as we are about to make, will demonstrate this, not only as *Horticulture* merely, but in more extended operations of *Agriculture;* a remark to which we invite the attention of Farmers throughout the county.

That highly cultivated lands have a local artificial *soil*, is generally known; but that they have, also, in a degree—and, during the season of vegetation, in a very great degree—a local *climate*, also available for important uses, may have escaped general observation, The fact, however, is undeniable. We are thus enabled and with great profit, to propagate many very desirable things, even from distant and different climates and soils, greatly extending the variety of our own productions.

[The following article from the Constitution, if adopted and acted upon by the societies throughout the country, would very much increase the zeal for Horticulture.]

SECTION XI.

Members of other Societies.

Members of all other Horticultural Societies shall be admitted to all the meetings of this Society, and to all its privileges, except in voting and distributing premiums.

Officers of the Rensselaer County Horticultural Society, for 1831.

President—JOHN D. DICKINSON.

Vice Presidents—Abraham C. Lansing, Herman Knickerbocker, Richard P. Hart, John Carpenter, R. I. Knowlson.

Treasurer—John T. McCoun.

Corresponding Secretary—O. L. Holley.

Recording Secretary—Albert P. Heartt

Councillors—Horatio G. Spafford, *Chairman*, Alexander Walsh, Amos Briggs, Amos Eaton, Moses Hale, Horatio Hicock, Elias Parmele, George B. Warren, John Holme, Jacob Merritt, Henry Bulkley, Elljah F. Willey, Stephen Warren.

Lecturer on Botany, Vegetable Physiology, and Horticultural Chemistry—AMOS EATON.

STANDING COMMITTEES OF THE COUNCIL.

On Fruit Trees, Vines, Fruits, Ornamental Trees, &c.—To have charge of whatever relates to the multiplication of Fruit Trees and Vines, by seeds, scions, buds, layers, suckers, or other modes; the introduction of new varieties; the various methods of pruning and training them, and whatever relates to their culture, and that of all other fruits and ornamental trees; the recommendation of objects for premiums, and awarding of them—Alexander Walsh, Chairman; Amos Briggs, Elijah F. Willey, Elias Parmele, H. G. Spafford.

On the culture and products of the Kitchen Garden.—To have charge of whatever relates to the location and management of the Kitchen Garden; the cultivation of all plants appertaining thereto; the introduction of a new varieties of esculent, medicinal, and all other vegetables useful in the arts, or subservient to other branches of national industry; the recommendation of objects for premiums, and the awarding of them—Stephen Warren, Chairman; Henry Bulkley, Horatio Hicock, Jacob Merritt.

On Shrubs, Flowers, Greenhouses, Hot-beds, &c.—To have charge of whatever relates to the culture, multiplication and preservation of Shrubs and Flowers of all kinds; the construction and management of Green-houses and Hot-beds; the recommendation of objects for premiums and the awarding of them—Moses Hale, Chairman; A. P. Heartt, G. B. Warren, John Holme.

On the Library. To have charge of all books drawings and engravings, and to recommend from time to time, such as it may be deemed expedient to procure; to superintend the publication of such communications and papers as may be directed by the Council; to recommend premiums for drawings of fruit and flowers, and plans of houses and other edifices and structures connected with Horticulture, and for communication on any subject in relation thereto—

Committee to be composed of the President of the Society, and the Chairmen of the Standing Committees, for the time being.

[From the By-Laws we extract the following. Independent of its tendency to favor the editorial fraternity, we heartily approve of it as calculated to do much more good than most other premiums.]

ARTICLE XIV,

Premiums in works on Horticulture.

Some part of the premiums will occasionally be given in periodical publications on Horticulture and Agriculture, as well to encourage the publishers, as to diffuse the knowledge they are engaged in collecting, so essential to our operations.

[The two following articles speak favorably of the spirit and views which actuate the members.]

ARTICLE XXIX.

Expenses of Corresponding Members to be paid.

All the expenses incurred by any Corresponding Member, in promoting, under the direction of the President and Secretary, the object of this Society, as well as any remuneration for personal trouble, shall be paid out of the funds of the Society, under the direction of the Council.

ARTICLE XXXI.

Lectures on Botany and Vegetable Physiology, Entomology and Chemistry.

Lecturers on Botany and Vegetable Physiology, on Entomology, so far as it relates to Horticulture, and on Horticultural Chemistry, shall be appointed. They shall be nominated by the Council at a stated meeting of the Society, and elected at that, or a subsequent stated meeting, by a majority of votes.

ART. XLIII.—*Miscellaneous, Original and Selected.*

Planting Vines in Yards.—Every person who occupies a house either in the city or country, should consider himself under obligations to plant a vine in his yard. Suppose a choice variety of either foreign or native grapes should be planted in every yard in this city, in a few years not a family, however poor, would be without this delicious fruit. The expense would not exceed from 25 to 50 cents. Many would undoubtedly be neglected and die; but many, also, would grow and bear fruit abundantly. Let it be not an objection that the tenant is to occupy but one year.

Pruning Fruit Trees, may be performed either in the Spring or in the Autumn. It is sometimes done in winter. The wound is then immediately and carefully covered with a suitable composition.

Large and Fat Oxen.—A pair of North Devonshire breed was exhibited in this city on the 25th inst. They were raised and fattened by Mr. Hurlbut, of Winchester, Con., and weighed each 2700 pounds.—They were a very fat, handsome, and noble pair of oxen. The stock was derived from Mr. Coke, the celebrated and opulent English agriculturist.

Our farmers are entitled to all praise when they send to our city such speciuens of what their management and their farms produce.

Charcoal for Hams. A writer in the American Farmer recommends to pack Hams, after they have been smoked, in pounded charcoal. It keeps out the flies, and prevents the fetid smell and unpleasant taste too often found in hams exposed for sale.

Bone Manure is highly estimated in every country where it has been used. For wet meadows it is of great service in promoting the growth of grass. They should be broken up and driven into the soil with a large hammer, or back of an axe.

Grafting.—A writer in the N.E. Farmer says, "when trees, no matter what kind, begin to show their fruit, and it is evident that grafting must be resorted to, or patiently put up with an inferior kind; instead of cutting off the top, uncover the roots, and choosing the most thrifty one, make a slit in the bark. Having cut your scion off with a slope, thrust it in and cover the roots with earth. It will take well and grow some the first year, much more the next, and the third year the old stock may be cut away, and the growth from that time will be very rapid, and soon form a good bearing tree."

Grapes.—J. Lowell, Esq. in a communication to the Massachusetts Society for the promotion of Agriculture, recommends in the strongest terms, the *fowl meadow grass.* "If this truly Yankee grass (says he) could be translated to all the meadow bottoms, the naturally moist, cold, half-peaty lands of New-England, their produce would be, at least, doubled." Herdsgrass, or Timothy, is in very bad repute in Europe, where it is considered course and not very nutricious. It is (continues he) admirably adapted to inn-holders and livery stable keepers, because it wears well. The youngest horses will find their powers of mastication sufficiently taxed in consuming a rack full in a night. In dry lands it soon runs out, and in all grounds it gives very little after crop. The red clover in Europe is not used as we use it, but as a green crop—as a succession crop to be fed down by various animals, and then turned under as a preparation for wheat. It is of too short duration to be valuable for hay.

To restore the bark of Trees.—Mr. S. Clark writes in the Genesee Farmer, that in the year 1829, he found two of his plum trees girdled by mice, the bark being eaten off four or five inches wide. "A gentleman of my acquaintance (says he) observed to me, that the trees might be saved by splicing in pieces of bark so as to connect the roots with the tops. I proceeded by taking some pieces of limbs of the same tree, corresponding in length to the width from which the bark had been removed, and having split them, I fitted them to the bodies, (about an inch and a half in diameter,) by flattening them and cutting square in at the ends, so as to make good joints where the bark was sound—tied them fast with strings and hilled the dirt over them. The result was, the pieces united at both ends, and the trees have continued to grow, as though no accident had befallen them." Mr. C. has been successful in thus treating apple trees.

Tar on Sheep.—It is but little known, but it is nevertheless a fact, says the Portland Mirror, that a little tar rubbed on the necks of young lambs or geese, will prevent the depredations of foxes upon them; these animals having an unconquerable aversion to the smell of tar.

Improvements of the Cherokees.—Thirty years ago a plough was scarcely seen in the nation. Twenty years ago there were nearly 500. Still the ground was cultivated chiefly by the hoe only.

Six years ago the number of ploughs, as enumerated, was 2,923. Among us all, we scarcely know a field that is now cultivated without ploughing. Consequently the quantity of land under cultivation is increased several fold. Habits of industry are much increased, and still increasing; and though many fail in this respect, so that the more indolent sometimes trespass upon the hospitality of the more industrious, yet most families provide in the produce of their fields for the supply of their own wants, and many raise considerable quantity of corn for sale. Suffering for want of food is as rare, we believe, as in any part of the civilized world. The dwellings of the mass of the Cherokees are comfortable log cabins. The meanest are not meaner than those of some of the neighboring whites. Formerly their huts had neither floors nor chimnies. Twenty years since nearly all had chimnies, but few had floors. Now most of the cabins are floored, besides being much improved in other respects. Many of the houses in the nation are decent two story buildings, and some are elegant.

Singular Snake.—One of our subscribers, Mr. Briester, of Quincy, yesterday exhibited to us, in a phial of water, a living snake, which was taken about ten days since from the head of a cabbage about to be cooked in his family. At first it was thought to be a thread, but being seen to move it was preserved. It is perfectly white, and though not larger round than a horse hair, it is full three feet in length; most of the time in an irregular coil; rather sluggish in its movements, which are most active near his head and tail. Once it protuded its tongue, which was of a dark color. —*Boston Pat.*

Choice of Geese.—In choosing your Geese for the table, care should be taken that the feet and legs be yellow, which is an indication of the bird being young; the legs of old geese are red. If recently killed, the legs will be pliable, but if stale they will generally be found dry and stiff.

To cure Butter.—Take two parts of the best common salt, one part of sugar, and one part of salt petre; beat them up, and blend the whole together.—Take one ounce of this composition for every sixteen ounces of butter—work it well into the mass, and close it up for use.

Butter cured in this way appears of a rich marrow consistence, and fine color, and never acquires a brittle hardness, nor tastes salt. It will likewise keep good three years, only observing that it must stand three weeks or a month before it is used.

The Soil best suited for Longevity in Peaches is a light sandy bottom, for instance, the wood is never so strong as in strong loam, and not so apt to be infested with the worm in the roots: in such soil as this, well cultivated every year, they will maintain their vigor for many years.

What I mean by well cultivated is, the ground kep continually removed by cropping it with such crops as will tend to improve its texture; such as potatoes, tur-

nips, peas, beans, &c., and every four or five years a crop of buckwheat, to be ploughed in when in bloom; this will be found to be of great service to both land and trees; as for corn, clover, timothy, orchard grass, and such like, they ought never to be suffered to be cultivated in an orchard.

It is much better to have 100 trees of good kinds, such as you want them for, well cultivated, than 500 or even 1000 neglected to take their chance, as is often the case when ground is cheap.

Great care is required in preparing the ground for an orchard.—*American Farmer.*

Slips.—Ladies who are fond of green house plants, and have it in their power to procure slips of various kinds, will find a great benefit, and a most certain preventive of failure, particularly either in a warm room in winter, or a warm sun in summer, by covering their slips with bell glasses, or where they cannot be procured, with tumblers, or any kind of glasses that will admit light, observing to admit air, at least one hour each day, and not keep the slips too wet, as it has a tendency to rot them before they strike root, or have leaves to carry on evaporation. By this process, hardly any single instance of a plant has been known to fail. In setting slips, it is important to clip nearly all the leaves, else there is too great a call for sap ere it has rooted. An ounce of saltpetre, or a spoonful of chloride of lime, in a gallon of water, is a great quickener of vegetation, and at once shows its beneficial effects.—*Genessee Farmer.*

Peculiar cultivation of Potatoes.—A French soldier placed half a dozen of potatoes at the bottom of a cask, upon a layer of sand and fresh earth, three or four inches thick, when the stalks had risen a few inches, he bent them down, and covered them four or five inches deep with the same mixture. He continued this operation till the cask was full. Six or seven months after, upon emptying the vessel, (which stood in a court yard,) he found that the half dozen potatoes had produced an enormous quantity of new ones, from the portions of the mother stems which had been successively laid down and covered.—*Journal des Connais, Usuells*, 1829.

Cheese.—To prevent your cheese having a rancid, nauseous flavor, put one table spoonful of salt to each gallon of milk when taken from the cows in the evening, for the cheese to be made the next day; put the salt at the bottom of the vessel that is to receive the milk. It will increase the curd, and prevent the milk from growing sour or putrid the hotest night in summer.

Summer Melting Pear.—This is a tree of the most vigorous growth and flourishing appearance, shooting erect into a stately form; the fruit is of a fair size, ripens early in August, and has by some, been considered the best pair of its season. After it comes into bearing, it increases annually in fertility and the quantity of its produce, but it attains considerable size before it produces freely.

I received the original tree of this variety, in 1802, from a person then resident in Baltimore, who was very curious in fruits, and who had a number of French varieties of pears. It was on a quince stock and soon bore fruit, which was larger, handsomer, and more melting than any I since had on pear stocks.—*Prince's Manual*

Improving the Breed of Domestic Animals.—Farmers should bear the following in mind:

"Experience has proved that crossing has only succeeded in an eminent degree, in those instances in which the females were larger than the usual proportion of females to males: and that it has generally failed when the males were disproportionably larger.

The external form of domestic animals has been much studied, and the proportions are well ascertained. But the external form is an indication only of internal structure. The principles of improving it must therefore be founded on the knowledge of the structure and use of the internal parts."

Oats bruised, ground, steamed, or boiled are said to be far more nutritious than when used whole.

Brown Beurré.—This is one of the choicest fruits our gardens can boast, and it has been justly remarked that there can scarcely be found any pear of autumn or winter that is superior to it. In England, however, it is not sufficiently hardy to bear as a standard, and they are under the consequent necessity of training it as a wall-fruit. Its period of ripening is about the end of September, and it will not keep very long.

In Fessenden's American Gardener it is remarked, that this "is in Boston the Prince of pears, but of no value in the country unless on walls, or in gardens sheltered by walls and hills."

From these considerations it would appear preferable, that the trees be low set, in order that they may be trained accordingly. The growth of the tree is slow, straggling, and irregular, and when young it is difficult on this account to be trained into an erect and well formed standard, from which cause it arises that trees of this variety and of the Gansels Bergamot, which grows in a similar manner, when sent from the nurseries, have so ill shapen and indifferent an appearance.—*Prince's Manual.*

Beurré D'Aremberg. This very excellent variety was introduced into our country, from Flanders, about eight years since, and has become pretty widely disseminated throughout the middle and eastern states of the Union. The Gloux Morceau, which was sent to England from Flanders at the same time with this, has been cultivated in several English nurseries and private collections for this kind, and in some instances the error originated there has been extended to this country by trees sent from them. The Gloux Morceau, although of great excellence, is rather inferior in quality to this.

I extract the following description from the Pomological Magazine:

"This pear is truly characterized in the Horticultural Transactions as deserving 'to be placed at the head of all the pears in cultivation.' We certainly do not know any variety which can upon the whole be said to equal it; for its flavor is not only excellent, and its flesh tender and juicy, but it is hardy, a great bearer, and will keep till March. It is usually cultivated as a dwarf, being grafted on quince, and trained against an east or west wall, but it succeeds perfectly well as an open standard.—*Ib.*

Chinese Cow.—An English publication states that "a Chinese Cow, now in England, gives milk so very rich, that one pint of it gives as much butter (4 ounces) as 7 pints of Sussex cow's milk, both churned imme-

diately from the cow without being set for cream. The Chinese cow is small, and, says Mr. Young, the beef is superior in fatness, and in butter the superiority is as 1400 pounds to 200 pounds from a very good country cow." This is such a superiority in milk and beef as might make it an object to the owners of American ships to China, to import some of the stock which is native, to this country.

Flour inspected in New-York.—By the official returns, says the Journal of Commerce, it appears that the following quantities of flour and meal have been inspected in New-York.

	Wheat flour. bls.	hf. bls.	Rye flour. bls.	Ind. meal. hds.	bls.
In 1830	805,852	23,037	15,167	10,316	9.663
In 1829	678,279	16,634	24,522	8,578	19,446
In 1828	578,863	19,266	18,316	9,517	23,475

Large quantities are sold for consumption within the State, which are not inspected.

The extreme prices reached during each month of 1830 and 1829 for fair qualities were as follows:—

	1830.		1829.	
January	$5,00	$4,75	$8,12	$8,25
February	4,75	4,63	8,25	8,50
March	4,62	5,50	8,25	7,62
April	4,75	5,12	7,25	6,50
May	4,75	4,88	6,50	7,00
June	4,75	5,12	6,75	6,50
July	4,88	5,00	6,25	5,00
August	4,88	5,12	5,00	5,38
September	5,38	5,00	5,50	5,25
October	5,00	5,25	5,88	5,25
November	5,25	5,06	5,25	5,50
December	5,00	5,25	5,38	5,00
Extremes of y.	4,50	5,25	5,00	8,50

The business of inspecting during the administration of the present incumbent, has been conducted with despatch, and as we believe, to the satisfaction of the merchants.

Our market, in the extent of its flour trade, is now in advance of every other in the Union. Baltimore has heretofore taken the lead. The inspection there in 1830, of wheat flour, amounted to 587,876 barrels, and 19,855 half barrels.

From the number of barrels of flour inspected in this city the past year, the fees of the inspector must have amounted to upwards of $13,000, at 1½ cents for each barrel. The above sum is independent of the 6 cents charged for weighing each barrel light or underrated. The office of flour inspector is one of the best in the gift of the State.

Paint for Garden Fences, Out Houses, Eve Troughs, &c.—Melt over a slow fire, in an iron pot or kettle, two lbs. of rosin and one lb. of roll brimstone; when perfectly liquified, add slowly three gallons of train or fish oil, and when perfectly incorporated, add Spanish brown, Venetian red, yellow ochre, or any other dark color, till of sufficient consistency to cover wood of a uniform colour; use it warm with a brush, and when dry, give it a second coat, and you will have a paint that the weather is incapable of affecting. It takes longer to dry than common paints, but if rightly managed, usually becomes hard in five or six days.—*Genesee Farmer.*

On the management of the Hautbois Strawberry.—The best way I have been able to discover to insure a good crop (as far as cultivation is concerned) is as follows:—In the spring, as soon the plants are in flower, mark out a piece of ground about two yards square, as that will, with care produce plants enough for extensive plantations; this must be done by cutting an alley between them and the other part of the bed, which must always be kept clear of runners, in order that they may not mix. This done look well over your plants, and pull up all the females; and when you have retained a sufficient number of males to occupy the ground, pull up all the others, as there are frequently plants which do not flower, and which if permitted to remain, would afterwards mix them. Now, let another piece be marked out for the females, pulling up all the males, and leaving none but such as have fruit or fruit blossoms on; out of these two pieces all future plantations are to be made in the following manner. About March, plant out in beds of three rows, each eighteen inches apart, and one foot from plant to plant in the rows or in the borders round the garden of the same width. Let the two outside rows be planted with females, and the middle one with males. The ground this year may be sown with seeds, or planted thinly; and the following year, (unless a very bad season) it will produce abundantly. They may either be continued a year or two longer, or planted every year from the two beds first marked out. I prefer the latter method, especially where ground is scarce, as the ground thus occupied may always be planted with something else, except the spring they are to bear fruit; whereas if the old beds remain they cannot be cropped at all, and require a great deal more time to manage than it will take to plant new ones.—*Louden's Mag.*

Laboring School—Maine Wesleyan Seminary.—From the report of a committee of this institution, published in the Christian Advocate, it appears that it was founded in 1825. It is believed to have been the first in which manual labor was united with study, with a view to furnish the poor with an education, and preserve the health of the rich while engaged in study. The number of students has varied with the season of the year from 60 to 120. About forty-five of the students have been constantly employed of late in the laboring departments, and it appears from the experience of this institution, that an industrious young man can defray a large portion of his expenses by his labors, without devoting more time than is absolutely necessary for exercise. That it does not interfere with intellectual improvement, is shown by the fact that the laboring students were usually among the best scholars.

Two courses of study are pursued in this institution; one designed as preparatory for college, and the other intended to give a thorough English education, at the same time furnishing those who are willing to labor with a knowledge of agriculture or one of the mechanic arts. The course of study is three years. While this institution is under the direction of the Wesleyan society, it is intended that their religious peculiarities should nor be taught in it. We regret to find that it labours under pecuniary embarrassment in consequence of the erection of buildings; and we hope that public liberality will not only relieve the trustees from this burthen, but enable them to purchase books and apparatus, of which they are in urgent need.—*An. of Ed.*

[The copy of the following Address was kindly furnished the Rev. E. F. Willey, Alexander Walsh, and John Ball, a committee appointed to solicit the same for publication.]

[For the New-York Farmer.]

ART. XLIV.—*Address delivered at the first meeting of the Lansingburgh Lyceum, February* 10, 1831. *By* HORATIO GATES SPAFFORD, L. L. D. President.

Gentlemen of the Lyceum.—That 'knowledge is power,' is a position that no longer strikes us a startling novelty, or that requires any proof. The object of learning, in all its forms, is knowledge. You have associated for this purpose, and the effort, in which you are engaged, well merits commendation. If happiness is of a social character, so, also, is intelligence, intellectual riches, to the collection, and enjoyment of which, mutual efforts are so highly conducive. All that is necessary, to make your efforts successful, and productive of much good, is an ardent zeal for Truth, blended with a friendly feeling for one another, animated by a common purpose, in the pursuit of a common object. That such may be the effect of your present association, permit me to express an earnest and very sincere hope, with an assurance of my most cordial co-operation.

The leading design of a Lyceum, is generally considered to be *Natural History*; a more intimate, thorough, and accurate acquaintance, with the productions and works of *Nature*. To collect, arrange, and classify, so as to bring into an orderly arrangement, facts and principles, derived from observation, experiment and reflection, is the business of *Science*. I am not to speak to you of the many sub-divisions of the *Physical Sciences*, as of *Botany*, *Mineralogy*, *Zoology*, *Geology*, and many others, natural branches; nor of *Chemistry*, with many more, only so far as to say, that the design of all these, is, to extend the bounds of knowledge. My main design, in this brief address will be, in the first place, assuming that the works of Nature are Works of God, and their Laws, His Laws, and then to show, that the study of those Works, and of those Laws, is the study of God Himself, manifested in His Works. I would, as an old man, honored by your call to preside over your deliberations, endeavor to show to you, a *natural* and *necessary connexion* between *Philosophy* and *Religion*.

That Philosophy is the Love of Wisdom, we learn from the history of language; and hence that the study of Philosophy is the study of Wisdom, of which God is the Fountain. God is Truth; pure, holy, Divine Truth. That He is, therefore, the sole source or Fountain of all Truth, is a position that will not be controverted by any Christian, nor by any sound-minded Philosopher. That from Truth comes Wisdom, needs no confirmation. If God be Truth, and if He Created the World, then are His Laws Truths, and, being Truths, are Laws. They are Laws of Order, because by them are regulated the orderly arrangement of things. Such of those Laws as relate to Matter, constitute the study of Natural Philosophy. That there are Laws of Matter, and those Laws simple Truths, is perfectly within our sphere of comprehension. Many of them are so simple, so plain to our understanding, as to seem self-evident, as if inately impressed upon the mind. If designed for our use, subservient to the great end of all Uses,—and as God is the Author of all—of the things created, and of their appointed Laws, and Means, and Uses,—so there must have been, from the beginning, an adaptation of one to the other. That man was formed for Uses, and these dependant upon his Knowledge of Truths, at least in this world, no rational mind can, for a moment, entertain a single doubt.

Truths, then, are Laws; and the Laws, devised by Infinite Wisdom, by which all the Works of Deity are regulated, are Truths. Many of these are within the comprehension of the faculties that God has given us, to the study of which we are therefore invited. Let us pursue this study, bearing in mind the origin of all truth, assured that Truths are immortal; and that the study of them, from a love of Truth, is at once a duty of Reason, of Philosophy, and Religion. I would not urge these considerations, but from a solemn conviction of their immense, their infinite importance. You will bear in mind, also, that as there are many Planets, or Worlds, all formed by the same Omnipotent Architect, there is no reason to doubt, that, the same Laws prevail in all, as Laws of the Universe! Well may we, then, direct our attention to the acquisition of such truths, as well for their use, and the sublime gratifications of a truly religious Philosophy, as in the hope, and belief, of their eternal existence, and perhaps of their applicability to our future state, in the regions of immortality. I know there are those who indulge themselves in a Philosophy widely different from this, seeming to glory in every degredation of their own species; and that this strange infatuation siezes upon the minds of men, who, not unfrequently, are reputed men of learning. From want of reflection, they have only learnt to raise objections to every thing, as if doubting were wisdom! Bearing in mind, then, that no two minds are constituted exactly alike, let us pursue the study of the *Great Book of Nature*, less intent upon what others have taught, concerning it, than upon what each is to learn, for himself, which is truly to Philosophize.

Having spoken of the Laws of Matter, as Laws of the Universe, let us, for a few moments, extend our contemplations to the truths of *Astronomy*. This wonderful science, strange as it may seem, has been successively unfolded to mankind, by a study of the Laws of Matter. The same Laws, which govern matter here, discovered by much observation and study, are known to be alike operative, in regulating the motions of all the Planets of our Solar System. This is certainly known, because, by an application of the same principles, all the phenomena of their motions are explained. Hence it is that we can calculate eclipses, even to fractions of time, with the positions, relatively to our earth, to the sun, and to each other. When we take into consideration the number of these Planets, their immense distances, various magnitudes, and motions, with the astonishing accuracy of our knowledge concerning all these particulars, we may have a very striking evidence of the powers of the human mind, well calculated to excite our efforts. At a mean distance of 95 millions of miles from the sun, we are continually travelling onward, around that luminary; while Herschel, at 1800 millions of miles, is performing like revolutions; and man, wonderfully endowed by his Maker, is enabled to determine the Laws, by which these motions are regulated.

The human mind, gentlemen, is always too much disposed to form its judgment of things by preconceived opinions, considering those opinions not only as Truths, but as standards, by which to judge all others. This process, unhappily, makes Truth to be whatever the mind believes; and the opposite, or False, as Untrue, whatever it disbelieves, often without any thought, any examination, or reflection. New Truths,—that is, Ideas, new to us, presented under such circumstances, come into our minds under circumstances highly unfavorable. The Philosophy, which I have been attempting to present to your consideration, regards Truth as of a higher origin, of a far more exalted character, and as a pure and holy Light, given us from above, by which to examine all things, both in, and above Nature. Perhaps it may not have occurred to you, that, as there are Laws of Matter, so also must there be Laws of Mind, and of all things, from which the Natural World exists, by Creation, as by the connexion between Cause and Effect. Thus Laws of Heaven, and Laws of Earth, Spiritual, and Natural, all from God, at once the Creator, Regenerator, Redeemer, and Savior, Jehovah-Jesus. The Will of God, in relation to all things, is thus seen to be His Law, as His Laws are manifestations of His Will. It follows, then, of course, that while we, in the Natural World, are studying the Laws impressed on things around us, we are studying Him, in His Laws, and Works: and in loving them, as His, we love Him, even our Father in Heaven! Thus are conjoined, as of one origin, in the same degree as each is founded on Truth, *Religion*, and *Philosophy*, by which man is elevated, in Knowledge, and in Virtue, and his thoughts and affections raised from Earth to Heaven.

The term, 'Revelation,' is generally applied exclusively to Knowledge of Divine things, revealed from Heaven. But is not that also a 'Revelation,' though of things within the sphere of Nature, by which man is enabled to understand their Laws, and to apply this knowledge, not only to matter around us, on this Earth, but to the motions, and phenomena, of all other Earths? Could any thing short of *Celestial Science*, teach us this knowledge of the sublime Mechanism of the Heavens, of the stupendous Machinery of the Universe, *Celestial Mechanics?* They are gifts, gentlemen, gifts from Heaven; given for our use and instruction, as well in the things of Earth, as in the things of that world to which we are hastening, where Truths will be seen to be eternal, emanations from Him who made the Heavens and the Earth, and ordained their Laws. In confirmation of this, here let me invite your attention to a single text of Scripture. "Every good and perfect Gift, is from above, and cometh down from the Father of Lights." That the Light of the understanding is Truth, needs no other confirmation, than such as is supplied, by reflection, to every serious mind: for Truth is Light, the Light of Heaven, and of all that is immortal in man. I hope the remark will not be misplaced, that the capacity of every mind, for a clear perception of Truths in the understanding, and for its reception, as a principle of Light and Life, is always in exact proportion to our love of God, and, from Love, our obedience to His Will. Whether we say His Will, or His Laws, or Commandments, or Words, the meaning is the same, as I trust has been clearly indicated.

In these views, gentlemen, if I have failed to show to you an interesting connexion between the truths of *Science*, and *Philosophy*, and *Religion*, I have at least declared my own solemn convictions, to which I invite your serious attention. Animated by such views, the Sciences assume a new importance, and an aspect altogether inviting, and lovely, worthy of Philosophy, worthy of Religion;—because, though of apparently different offices, they are of one and the same origin, and, by Divine Wisdom, are made one in effect. I have thus given you, also, an exposition of the motives, which have induced me to devote a long life to the investigation of these things, aloof, as much as possible, from all the strifes of this world, its connexions, and commotions, its parties, factions, sects and creeds, solitary, and alone. Of the application of the principles adduced, and of their importance, in the career upon which you are entering, I may speak to you hereafter; as also, of some *particular subjects of Philosophy*, in which I hope to show to you the happy effects of the combined influences of *Philosophy* and *Religion*.

Remarks by the Editor.—The greater part of the above address perfectly accords with our opinion—and, perhaps, if we fully comprehended the writer's meaning, the whole would claim our hearty concurrence.

It is a fact not creditable to the affections of man towards his Creator, that although the material world has ever been full of God—a mirror of his attributes—yet there has been no universal anxiety to know his pleasure, in order to regulate the conduct in perfect accordance to his will. All the evidences of his existence that he he has displayed in the heavens, and all that he has spread before us on the earth, have been ineffectual in keeping the passions of mankind in subjection, much less in producing adoration and love. Of the great mass of mankind this has been true in all ages,—and under all circumstances. The savage and the philosopher, though admirers of nature, have remained unaffected and unreformed by the knowledge of God which they have derived from the material world. We believe, however, with Mr. Spafford, that all truth is homogeneous, and that loving the works of the Creator, *because they are his*, or *because they exhibit him*, causes us to love Him. The knowledge we derive of God from studying the principle of gravitation *should* have the same effect on the heart, as a full belief that he divided the Red Sea and led the Israelites through in safety. We fully believe too, that "the capacity of every mind, for the reception of truth as a principle of light and life, is in exact proportion to our love of God;" and consequently, without this love we derive no 'light and life' from the study of the material world. The dignity of a rational being, in studying the works of nature, is not supported unless the Author of them is the chief and ultimate object; and in proportion as mankind keep this in view, and the conduct compatibly regulated, so will happiness be diffused.

We would here observe, that we are anxious our correspondents would forbear to give to their remarks any bearing upon religious *sects*, or political *parties*. Our columns shall ever be open to *facts* derived from the Great Book of Nature, particularly if relating to the productions of the earth, or to the physical condition of man.

[For the New-York Farmer.]

ART. XLV.—REVIEW *of Loudon's Encyclopedia of Plants.* [Continued from page 149 vol. 3.]

In our hasty *Review of Loudon's Encyclopedia of Plants*, we observed with regret that *Bartonia* and *Angelonia* were both *printed* with an unnecessary *e*.

Though it may seem rather out of season, we wish to supply some deficiencies in that article.

The name of Professor *Lindley* appears not on the title page; but in the preface we are told that "he determined the *genera*, and the number of *species* to be arranged under them; prepared the *specific characters*, *derivations*, and *accentuations*; he either wrote or examined the *notes*; and he corrected the whole while passing through the press."

Of the magnitude of these labours, a correct idea can scarcely be formed by a hasty perusal of the work. Many of the notes are fine specimens of composition; others, however, though excellent in the *matter*, we judge from the *manner* to have come from hands more used to the *spade* than to the *pen*; and amongst these are dispersed notes of another description, which ill accord with the high standing of the learned Professor, and for which even *haste* itself can form no proper apology.

Of some of these exceptionable passages, we took a slight notice in our former paper—other instances shall now be given:

"*Bourreria.* It was named after *one* Bourrer, an apothecary of Nuremberg."

"*Huernia.* Named after Justus Huernius, *an obscure botanist.*

"*Lindernia.* Named after Francis Lindern, *an obscure Swiss botanist.*

"*Serruria.* Named by Burmannus after Professor Joseph Serrurier, *an obscure botanist, of whom little is known.*

"*Schwenckia.* John Theodore Schwenck was a professor of Medicine at Jena. There was another Schwenck, a professor of botany to the garden at Leyden. *This genus is like the merits of the professors, but little known.*"

These contemptuous expressions are entirely gratuitous, and are applied to men whose names have been honored by Willdenow, Gartner, and R. Brown. It is remarkable that many others are not disrespectfully named, of whom still less is said, and of whom, as far as appears, quite as little is known. For this difference of behaviour in Professor *Lindley* (or of his coadjutors) we are unable to assign any reason which would pass to his credit. We are unwilling to see Naturalists of past ages, called up to be examined by the dim lights of his erudition; for we are satisfied that in several cases, the *obscurity* is owing to his own want of biographical knowledge, and to his own limited researches in that direction.

On this subject, some instances have already been given. We have others:

"*Coldenia.* So named by Linnæus, in honor of Cadwallader Colden, an *English* naturalist." [From Dunse, in Scotland. He resided seven years in Pennsylvania,—married a Scotch lady in Scotland,—and settled in New-York, of which state he was lieutenant governor about 15 years.] See Hooper's Medical Dictionary.

"*Logania.* Named by Mr. Brown after *a* Mr. James Logan, *said* to have been the author of some experiments upon the generation of plants."

We doubt if any writer ever prefixes the article *a* to a name *in this manner*, as an indication of respect; and we know that a slight indication to the contrary is commonly understood. How far its employment *in this manner* affords proof of a want of polish, we shall not enquire; neither shall we enquire *how far* its employment in our quotation was intended to fix the character of this "Mr. James Logan" *below* that of any other "Mr. James Logan." That the learned Professor had *doubts* whether this James Logan was entitled to the honor conferred on his memory by R. Brown, is sufficiently evident; and by the following statement it will be sufficiently evident that he ought to have had no doubts on the subject.

The James Logan who made the experiments, (which we have had the satisfaction to read,) was the confidential friend of *William Penn*, the founder of Pennsylvania, and in the year 1699, was appointed *Secretary* of the province. He "successively filled with great ability and integrity, the offices of Commissioner of property, *Chief Justice*, and for nearly two years that of *Governor*, as president of the council. His intellect was powerful, and his acquirements were remarkable. He was well versed in ancient and modern learning, being acquainted with the *oriental tongues*, a master of the *Greek*, *Latin*, *French*, and *Italian* languages; and deeply skilled in the *Mathematics*, and in *Natural* and *Moral Philosophy*. He wrote and published on various subjects, both in *Latin* and in *English*, both here and abroad; and held an extensive correspondence with the *literati* in different parts of Europe." The *Loganian Library* of Philadelphia, which contains about *five thousand volumes of the best books in various languages, arts, and sciences*, he left as a *Legacy* to his fellow-citizens, "a splendid and durable monument of his munificence." See Proud's Hist. of Pennsylvania.

Common English names of plants, have been collected with great care by some botanists, without distinguishing between such as are *good*, and such as are *vile*, and confined to the lowest vulgar. Professor *Lindley* has partially yielded to this morbid taste, his index shewing 15 *bastard names*, and some others on the same level.

We will now descend to errors of less magnitude.

Hibiscus virginicus is marked as a yellow flower. "Petals bright purple." Elliott.

——— *militaris*, a green house plant! It is uninjured by our coldest winters.

——— *speciosus*, 2 feet high. It may be so in pots; but in its native soil grows from 4 to 7 feet high.

Coreopsis lanceolata is marked *biennial.* It is a perfect perennial.

The species of *Amorpha* from Missouri are marked frame plants!

Cephalanthus occidentalis is called "a low evergreen shrub;" but it is properly marked "deciduous, 7 feet high."

Pogonia ophioglossoides and *Arethusa bulbosa* are marked green house plants!

Frasera carolinensis is marked *biennial;* and this in many cases may be right, but in unfavorable situations it will remain for years without flowering.

All the species of *Cissus* are marked ornamental;

but in the note none are ornamental but *C. quinquefolia*. This is marked as a hot house plant from Brazil, and we are told in the note that it is justly admired for its quinquefid leaves, and the different tints of "yellow, red, and purple, which those take in autumn. It grows rapidly in any soil; and is well adapted for covering naked walls, decorating old unsightly elevations of houses, ruins, cottages, bowers, &c." We were surprised to find an old acquaintance from our hedge-rows in a hot house! but we should have been still more surprised to see a Brazilian venturing out, to spread its trailing branches over old walls, in the frosty climate of Britain.

Nicotiana nana of the Rocky Mountains is marked a green house plant!

The *Chinese primrose* is marked a *biennial!* We cultivate two varieties of this species, and consider it most decidedly *perennial.*

Both species of *Santalum* are marked hardy!

We apprehend *Ilex aquifolium* has not been found a native of North America. By this name, our older botanists called *I. opaca*, considering it the same as the European species, and this may have led to the mistake.

Gladiolus communis is marked a green house plant!

Hydrophillum. This is generally rendered from the Greek, *water leaf;* and we are told that in spring it has a small quantity of water in the cavity of each leaf. We dispute it not; but the quantity must be "small" indeed. To write it *watered leaf*, (resembling the water colours of bank paper,) would be descriptive of its variegated foliage. We have never seen any of the species growing in "*marshes.*" *Torrey* gives the *habitat* of *H. virginicum* and *H. appendiculatum* among shady rocks; and that of *H. canadense* in woods and on mountains. From what does "the neat foliage protect the small white flowers"? The *Hydrophillum* which is figured, shows the leaves *below* the flowers. We recommend that the whole of that note be expunged from the volume.

Thalia dealbata is not indigenously *aquatic.*

Menyanthes trifoliata is more properly a marsh plant.

"From the stalks of *Apocynum cannabinum*, the Indians of North America, prepare a substitute for hemp, of which they make twine, bags, fishing nets and lines, and *linen* for their own wear"! Professor Lindley ought to give his authorities.

The American mulberry *(Morus rubra)* is marked an *evergreen shrub!* only 10 feet high!

Schisandra coccinea is marked a green house plant! It bears the winters of New-York uninjured.

The height of every tree is given; but is it the height of the tree in its native clime? or the height of some seedling in Britain? If the latter is intended, it may pass for what it is worth; but many of the altitudes are mere burlesques on the interior forests of our country. To us, who have often seen the following species, (and many others) towering to the height of one hundred feet or more, with diameters of three, and some of even five feet, the statements in this volume seem childish. *Acer rubrum*, (soft or red maple) 20 feet! *Gleditschia triacanthes*, (honey locust) 30 feet! *Fraxinus americana*, (white ash) 20 feet!—*Quercus rubra* (red oak) 40 feet! *Pinus canadensus*, (the hemlock) 30 feet! *Juglans nigra*, (black walnut) 30 feet! *Ulmus americana*, (white elm) 40 feet! *Pinus strobus*, (white pine) 50 feet! &c. &c. who would suppose that this *little elm* was considered by Michaux as the most magnificent tree in the temperate climes of the two continents? or that our white pine ever attained the height of 230 feet? (as we have been credibly informed). We ourselves have measured one of 180 feet in length.

In the numbering of the figures, we have observed several errors. The figure which is marked for *Thuga occidentalis* has no resemblance to the tree.

We have noticed the great difference of climate between Britain and New-York, as indicated by particular plants. We add a few more instances, in which our bright skies in summer more than compensate for the severity of our winters.

"*Yucca*—even the reputed hardy species do not generally thrive in the open air."

"*Cornus florida*, blossoms early, but does not bear berries in the country."

"*Catalpa syringifolia*—requires a sheltered situation. The flowers seldom appear in this climate."

"*Polianthes*—tuberose, is imported annually from Italy and America."

"The Canadian Pomponian, and Philadelphia *martagone* are somewhat tender."

The following extract refers to a law in Vegetation which cultivators may do well to remember: "*Lysimachia nummularia* is ornamental on moist rock work, or hanging from a pot in a northern exposure. Though one of the hardiest natives, it seldom produces ripe seeds, like most plants which multiply themselves much by the roots or stem."

We were gratified by the following tribute to the memory of a great man, but whose merits like those of other great men, have grown dim before the baneful spirit of party. "*Linnæa*, so named by Gronovius in honor of the celebrated Carl Von Linné, the reformer of Natural History, and the father of the modern physical sciences. His works are not less numerous than important; it is to be wished that such another man, with equal talent, industry and judgment could be found at the present day to rescue the science of Natural History from the confusion to which it is fast approaching."

Of the Linnæan class *Cryptogamia* 2271 species are enumerated; and we think the figures of these plants are remarkably fine and descriptive. The feeders on *Mushrooms* ought to rejoice for the long list of new articles to their bill of fare, and be thankful for the means given of eschewing the poisonous kinds.

We feel every disposition to do justice to the eminent talents and important services of Professor *Lindley.* The faults which we have noticed, ought not to issue a second time from the press; but these faults (and some others which we pass in silence) bear a very small proportion to the excellent parts of this book.

T.

[For the New-York Farmer.]

ART. XLVI.—*Remarks on the Culture of the Vine.*

MR. FLEET,—Adlum's Treatise on the *Grape Culture*, and on *Wine Making*, seem, to me not so much noticed as they ought to be, either in our current publications, or the minds of cultivators. Major Adlum is the proprietor of the Georgetown Vineyard, Dis-

trict of Columbia, has had very many years of experience, writes from experience, and should be regarded as good authority as any author. He is, emphatically, the father of the Grape Culture in the United States, since the introduction of which, as a matter of taste, science or profit, we have paid too much attention to Foreign Authors. Adlum's advice, to prefer our own native kinds of varieties of the Grape, deserves far more attention, and favor, than we at present feel disposed to believe, to which the public attention should be incessantly called. I am satisfied of this, from ample experience, having tried vines from most parts of the Old World, and having examined the most celebrated writers. Dufour's experience was good, but his book is faulty, principally from want of knowledge of our language. Berneaud for men of science, is highly useful; and Loubat is instructive; but none of these should preclude Adlum, as a useful practical work, for practical men. Prince's, I have not seen.

While the people of this State are paying so much attention to the Culture of the Vine, and almost all of us have every thing to learn, in relation to it, it appears to me very desirable that this want should be considered by the Legislature. That the encouragement of this culture, with the making of Wine, deserves every possible aid, no one will doubt. A good practical Treatise, scientifically arranged, and written, but not technically a scientific work, if widely distributed, would greatly promote the success of the people, generally, and I should think the Legislature would do well to direct its attention to it.

Suppose the Legislature offer a premium, say of 500 dollars, for the practical work, on the CULTURE OF THE VINE, with the necessary directions and explanatory cuts, for *Pressing*, *Training*, &c., description of *kinds*, and *varieties*, and directions for *Wine Making*, to be adjudged by Buel, of Albany, Thomas, of Cayuga, and some of your best practical cultivators in New-York? When so adjudged, let the work be published by the Booksellers, the copy right being the *gift* of the *law*, to the *people*, or of the people to themselves. Could 500 dollars of the public funds be better bestowed? H. G. S.

Feb. 14, 1831–75.

[The following interesting information we take from the American Farmer.]

Lin. Bot. Garden, Feb. 16, 1831.

MR. SMITH:

Dear Sir,—The last year, when engaged in publishing the Treatise on the Vine, I was favored with the annexed highly interesting communication from Dr. J. C. S. Monkur, Corresponding Secretary of the Maryland Society for promoting the Vine culture. Anticipating, at that period, the prompt publication of the second volume of the Treatise, I had determined to incorporate it therewith; but that having been somewhat deferred, I am unwilling that a communication so useful and interesting should be longer witheld from the public, and I therefore, by permission of the writer, transmit it to you for insertion in the columns of the American Farmer.

With the highest respect,
WM. ROBERT PRINCE.

Baltimore, March, 5, 1830.

WILLIAM R. PRINCE, ESQ.

Dear Sir,—I received, yesterday, your very acceptable favor of the 27th of February. You ask for any information as to the success of the society for promoting the culture of the Vine; the notice of any new seedling vines, and any new discoveries, &c. I enter upon the performance of your request with considerable pleasure; but from the infant state of the society, not a great deal of information can be as yet expected.

For the views and wishes of this association, permit me to refer you to the address of the committee on behalf of the board of directors, which will be found in the 5th number, 11th vol. of the American Farmer. We obtained the act of incorporation at the session of the Legislature for 1828-'29, under the name of the "*Maryland Society for the promotion of the Culture of the Vine*," with a capital of $3,000, and the privilege of increasing it to $12,000. The price of each share is fixed at $10; two-thirds have been subscribed for, and the remainder may be disposed of at pleasure. It was in contemplation to have entered immediately upon a systematic course of experimental cultivation, had we been able to procure on advantageous terms a suitable piece of land for the purpose; but not having it in our power to accomplish in time, this intention, we have postponed until the beginning of the ensuing fall the execution of our plan.

Although, not having collectively achieved any purposes, our individual efforts have, and are now, zealously and incessantly applied to the introduction and cultivation, to the collection and dissemination of all possible information upon this interesting and important subject. Our exertions have not been entirely in vain. There are near the city of Baltimore, three vineyards in progressive operation, of three to ten acres, and smaller ones, which are owned by, and under the superintendence of, the individual members of this society. From information received, others are in a state of preparation and forwardness in many of the counties of this state; and from the increasing importance and attention now bestowing upon the general culture of the vine, we may, in the course of due time, expect much additional and valuable light upon this most pleasing portion of horticulture. Many both foreign and native seedling vines, are under our individual care; but from the short time of our operations, no determinate and satisfactory results can be given. The native seeds that were politely presented us by John S. Skinner, Esq., have been distributed to the different counties in this State, and in some parts of Virginia, and from the intelligence given us, the greater part have succeeded. Of those imported and distributed in 1825, by Mr. Bosley of this city, many have lived, but two only, to our knowledge, have produced fruit. These appear to bear the rigor of seasons, and will, it is highly probably, become a valuable acquisition to our list of foreign table grapes.

There are other valuable and fine seedling vines from foreign seed in this city; the histories and characters of which we intend to obtain at as early a period as possible for publication. As to discoveries, we have not as yet been fortunate in finding any particularly interesting or valuable; however, as there is a number of experiments now making, it is likely we may be successful in their accomplishment; if so, they will be immediately communicated.

Whilst upon this subject, I shall claim your atten-

tion to the history and character of a vine much sought after and greatly admired in this city; which, from its peculiar character, I have not seen described in any work that has come under my notice. It is the *Sultana*. This vine was first brought to Baltimore in 1820 by captain Dickerson, from Smyrna, for Doctor William H. Clendinen of this city. It is extremely luxuriant and vigorous; the wood of last year from four year old vines, measures two inches and a quarter in circumference, somewhat flattened, of a dark straw color, marked with minute dots of a darkish red. The like appearances are also observable upon the sunny side of the fruit on the shouldered portions of the cluster, and upon many of the leaves after their fall in autumn. The leaves are large, of a lively green hue and delicate texture, simple, with irregularly indented edges; the petiole moderately long and nearly cylindrical. At the fall they assume a pale yellow color, and are frequently speckled with darkish red. The clustures are large, long, shouldered, oftentimes arriving to two pounds and a half, but usually from eight to twelve and sixteen ounces; the berries thick set and covered with a delicate down, *oval*, and of a white color, weighing from ten to *forty* and fifty grains; the skin thin, flesh delicate and melting; the seeds pulpous and transparent; and it may with some propriety be said to be *seedless*, from their very soft condition, as they are not observable in eating; however, if the berries be dried, they are the size and firmness of the seed of the flax, and of a darkish red color.

It ripens with me from the 18th to 25th of August, and will keep well. The conspicuous remains on every berry of the former situation of the pistil, distinguished it from every other kind that has come to my notice, and with the peculiar delicate and rich appearance of the cluster, we can have no difficulty, after having once seen it, to know it from every other variety of the grape. I have had it in culture for six years, and find it hardy, a moderate bearer, never more than two clusters from one bud, and will not bear close pruning.

Take it upon the whole, I should place it inferior to none in richness and delicacy for the table, excepting those of the Muscat variety. It has been supposed by some that the *Sultana* might, perhaps, be the same as the "*White Corinth*," described by M. T. De Berneaud, and the "*White seedless Corinth*" in your Treatise on Horticulture. But upon examination, I am persuaded that there exists very distinguishable differences. The cluster of the "*White Corinth*" of Berneaud is middling thick, short, crowded, and thick set with *very small round* berries. This description does not accord with my observations upon the *Sultana*. Its raceme is long, two and three winged; frequently I have had them on the same vine, trained on the arbor principle, five years old, and two from the same bud eight and ten inches long. There is another difference, the berries of the "Corinth" are *very small and round*, whilst those of the *Sultana* are most generally *twenty* to *forty grains* in weight, of an *oval* figure. It is true, there is an agreement in the nature of their seed, both being what are now termed *seedless*; yet their other differences are such as to satisfy me they are grapes of separate varieties. The "*White seedless Corinth*" in your collection, and according to your description, is the *smallest* grapes you have ever seen, white, *round*, seedless; the bunch long, winged, and regularly formed. The same discriminative marks here exist to prove it not to be the Sultana. In the first place, they differ in the form of the berry, and also must differ materially in the size of the fruit. I believe the White Corinth of De Berneaud, and the White seedless Corinth in your collection, to be one and the same variety. I sent you last spring cuttings of the Sultana; and from an inspection and comparison of the wood with that of the "White seedless Corinth," you may be enabled to decide if they be of the same kind of grapes. I would feel indebted to you if you could satisfy me upon the result of your investigation.

Allow me, dear sir, to give you the warmest thanks in my own name, and that of our society, for your kind offer to present us with the vines this year, and with the sincerest esteem and most grateful acknowledgment, I remain, Yours, very respectfully,

JOHN C. S. MONKUR, M. D.
C. S. Maryland Society, &c.

[For the New-York Farmer.]

ART. XLVI.—WILSON'S ORNITHOLOGY. *The Snow Bird, and the Black and White Creeper.* [Continued from page 25.]

Some pleasing verses "To the American Snow-Bird" have lately been copied from one of the British Annuals into some of our papers, with the following *curious* introduction:—

"The snow bird of America is remarked among *ornithologists!* for the obscurity which hangs round its history. On the first approach of Winter, it suddenly makes its appearance at the farm-houses, apparently driven by the inclemency of the weather to court the society of man. Whence it comes no one can tell, and whither it goes, for its exit is as sudden as its entrance, no one has yet been able to discover," &c. The following are the lines:

The American Snow-Bird.

From distant climes, which none can tell,
In dress of bright and changeful hue,
I greet the bird beloved so well,
When childhood's hours around me flew.

Sure, though the northern storms may spend
Their fury over field and tree,
Their blasts are welcome, if they send
So gay a visitant as thee.

I care not that the laughing spring
Its blue bird messenger may own;
If winter be but sure to bring
The Snow-bird I have always known.

How oft, in childhood's rainbow hours,
Iv'e watched thee at the parlor pane:
Hiding thee from the ruthless showers,
Till vernal airs should breathe again.

Oh! my youthful eyes would strain;
Pursuing in the wayward track!
How oft I've spread the attractive grain,
To bring thy wandering pinions back!

Yes, the gentle bird, I mind the time
Thou'st sported round my window seat,

(Thoughtless of evil, as of crime,)
Pleased, it would seem, my face to greet—

And feeding with confiding stay,
On tiny crumbs I threw to thee :—
'Twere base, 'twere cruel, to betray
A bird that never injured me.

There breathes an everlasting Power,
Unknown but felt—unseen, but heard,
He clothes each tree, He tints each flower,
His arm protects my darling bird.

Let winter come with stormy voice ;
Let snow-wreaths crown the highest hill ;
He bids thee in the storm rejoice,
He sees, protects, and feeds thee still.

In this account there are evident traces of a love for the marvellous, and a total unacquaintance with the researches of WILSON; indeed his "*ornithology*," from its high price, has been comparatively confined to the hands of a few. The following extracts will show that the snow-bird (*Fringilla hudsonia*) is not a mysterious personage, but one who may be found at all times in those places where his wants are most readily supplied.

"This well known species is by far the most numerous, as well as the most extensively disseminated, of all the feathered tribes that visit us from the frozen regions of the north. Their migrations extending from the arctic circle, and probably beyond it, to the shores of the Gulf of Mexico, spreading over the whole breadth of the United States, from the Atlantic ocean to Louisiana.—About the 20th of October they make their appearance in those parts of Pennsylvania east of the Alleghany Mountains. At first they are most generally seen on the borders of woods among the falling and decayed leaves, in loose flocks of thirty or forty together, always taking to the trees when disturbed. As the weather sets in colder, they approach nearer the farm-house and villages ; and on the appearance of what is usually called *falling weather*, assemble in larger flocks, and seem doubly diligent in searching for food. This increased activity is generally a sure prognostic of a storm. When deep snow covers the ground, they collect about the barn, stables, and other out-houses, spread over the yard, and even round the steps of the door ; not only in the country and villages, but in the heart of our large cities ; crowding round the threshold early in the morning, gleaning up the crumbs; appearing very lively and familiar. They have also recourse at the severe season when the face of the earth is shut up from them, to the seeds of many kinds of weeds that still rise above the snow, in corners of fields, and low sheltered situations along the borders of creeks and fences.

"In the month of April when the weather begins to be warm, they are observed to retreat to the woods ; and to prefer the shaded sides of hills and thickets, at which times the males warble out a few very low sweet notes ; and are almost perpetually pursuing and fighting with each other. About the 20th of April they take their leave of our humble regions, and retire to the north, and to the high ranges of the Alleghany, to build their nests and rear their young. In some of those ranges, in the interior of Virginia, and northward about the [head] waters of the West branch of the Susquehanna, breed in great numbers. The nest is fixed in the ground or among the grass, sometimes several being within a small distance of each other. According to the observations of the gentlemen residing at Hudson's Bay factory [some] arrive there about the beginning of June, stay a week or two, and proceed farther north to breed. They return to that settlement in Autumn, on their way to the south.

"In some parts I found the opinion that the snow-bird is transformed into the small *chipping sparrow*. I convinced a gentleman of New-York of his mistake in this matter, by taking him to the house of Mr. *Gautier*, there, who amuses himself by keeping a great number of native as well as foreign birds. This was in the month of July, and the snow-bird appeared there in the same colored plumage he usually has.—Several individuals of the chipping sparrow were also in the same apartment, and the evidence was irresistible." Wilson's Ornith. vol. 2.

The snow-bird which so pleased us in childhood, we have not observed in Winter north of the Alleghany range of mountains ; but I have seen a few in Spring, probably on their way to a cooler climate.

The Black and White Creeper.

"This nimble and expert little species seldom perches on the small twigs ; but circumambulates the trunk, and larger branches, in quest of *ants and other insects* with admirable dexterity. It arrives in Pennsylvania from the south, about the 20th of April; the young begin to fly early in July ; and the whole tribe abandon the country about the beginning of October. Sloane describes this bird as an inhabitant of the West India Islands, where it probably winters.

"The genus of Creeper comprehends about thirty species, many of which are richly adorned with gorgeous plumage; but like their congenial tribe the Woodpecker, few of them excel in song ; *their tongues seem better calculated for extracting noxious insects from the bark of trees, than for thrilling out sprightly air;* as the hardened hands of the husbandman are better suited for clearing the forest or guiding the plough, than dancing among the keys of a forte-piano. Which of the two is the most honorable and useful employment is not difficult to determine. Let the farmer therefore respect this little bird for its useful qualities, in clearing his fruit and forest trees from destructive insects, though it cannot serenade him with its song." Wilson's Ornithology, vol. 2. D. T.

ART. XLVIII.—*Directions for the Management of the Silk Worm.*

The rearing of silk-worms is an agreeable and interesting pursuit for young persons; it has now become so popular in this country that it is hardly necessary to recommend it even as a source of profit.

There are several species of larvæ or caterpillars, besides silk-worms, which produce a sort of silk. The web of the spider is very similar to silk, and it is said that a few pair of stockings, and the substance upon which a picture was painted, have been made of the webs of a particular kind of insect. But it is scarcely to be hoped that the labors of the spider, or any of the different species of larvæ, will ever be so valuable to man as that of the silk-worm.

The egg of the silk-worm is nearly round, and in size rather less than a mustard seed. When first laid it is of a light yellow, but it soon changes to an ash

color. About the latter end of April, the eggs are strewed or placed on paper, where they were laid by the moth, which should be put where the wind cannot blow them away, but so the sun may shine upon them. A chamber window that fronts the south, is best for this purpose. It is advisable to cover the papers with a bit of gauze; and especial care should be taken that they are secure from birds and cats. Having thus placed the eggs in a proper situation, leave them until they begin to hatch, and as the young worms or larvæ are warmed into existence, remove them to the place you design to feed them, leaving the unhatched eggs undisturbed.

The larvæ or caterpillar, when it is first hatched, is of a dark hue, but when full grown, its color is a creamy white; it has a small circle on each side, at every joint—and two half circles on its back; its feet are six in number, three being placed on each side near its head; it has also ten holders, eight in the middle of the body, and two at the tail. While it remains in the caterpillar state, or rather from the time it is hatched, until it begins to spin, the silk-worm has four sicknesses; during each of these, which lasts about three days, the worm quits its food, grows thicker and shorter, and at length casts it skin.

As soon as the worms begin to come out of their eggs, you must procure some young mulberry leaves, and if they are not to be had immediately, lettuce leaves, which place in the receivers, and as the young worms are hatched, place them to feed upon the leaves. At this early stage of their existence, the silk-worms are so small and tender that they ought to be taken from the hatching papers to the receiver on the point of a feather, or a camel hair pencil.

Although lettuce leaves may be used for the first three or four days, mulberry leaves, the natural food for silk-worms, must be procured as soon as possible, and for the first week of their lives, they ought, in fact, to be fed on nothing else. The receivers or trays should be cleaned out every morning; and while little, the worms should be removed with care, by means of a hair or feather. When they are about one third grown, it is as well to put new leaves into the trays on the top of the stale ones, the worms will soon leave the latter for the former, and then you may take the leaves and worms together out into clean trays. When the worms are large, you can lift them from one tray to another in your fingers, taking care not to squeeze them. Until they arrive at their first sickness, it will be quite sufficient to afford them leaves once a day; thence, until their third, they should be fed twice a day, increasing the quantity of leaves at each time of feeding, according to their growth; and from their third to their fourth sickness, they should be fed three times, and if it is very warm weather, four times a day; and after the fourth sickness is past, the worms should have as many leaves as they can eat. They will consume more food during the few days that succeed their last sickness, than in the whole of the previous part of their lives. In all cases the leaves should be dry and fresh as possible. If they have been closely packed, they should be dryed.

If the weather be not unseasonable, the worms should have plenty of air, especially after they have got over their last sickness.

They must be frequently cleansed too, as they make much dirt; their trays should be more commodious, and also deeper than those used for the worms when smaller; otherwise they may crawl out and be destroyed. At the end of forty or forty-five days from the time of their being hatched, they begin to change to a clear transparent pink or flesh color, particularly on their tails; soon after, they grow restless, and refuse their food. When these symptoms are perceived, it is time for you to prepare for their spinning.

THE COCOON.

As soon as the indications mentioned in the last paragraph are perceived, roll up small square pieces of paper, corner-wise, & pin them to a tape stretched across the wall of a room, & with the pointed end downward. When a worm has altogether quit its food, place it in one of these little work shops, as they may with great propriety be called, for in these the worm spins its silk. It disposes of its web in such a manner as to leave a cavity within; this is called the *cocoon;* and here the worm again casts its skin, and changes its appearance altogether, becoming short, thick, and enclosed in a hardish, dark-brown, shining case. It is now called an aurelia, chrysalis, or nympha. It should be left undisturbed in its labors, until, by gently shaking the cocoon at the ear, the aurelia may be heard rattling within. It is then proper to wind off the silk.

WINDING.

Were the cocoon to be left for about twenty days after the caterpillar has become an aurelia, it would effect another change in its appearance, and become a *moth*, and eat its way out of the cocoon. This, however, must not be suffered, if the silk is to be preserved. The loose outward silk is to be removed, and the cocoon should then be placed in warm water, in order that its end may more readily be found, and also that the silk may be more easily wound off. A common card is often used for this purpose, but those who have large stocks, wind the silk off, joining second threads together, by means of little reels. In those places where the silk is wound off for the purpose of commerce, a certain number only of the cocoons are preserved for the purpose of producing eggs, and laid aside. The others are placed in boiling water, and the nympha thus killed. The silk varies from white to redish yellow, but the lightest cocoons are the most esteemed.

THE MOTH—LAYING.

All the silk being wound off, the aurelia, or grub, must be placed in a little bran, just under the surface; in this situation it will effect its change as soon as if if left in the cocoon. As soon as the moths have emerged from their shell, place them together, in paper trays, similar to those in which they were fed.—Cover the bottom of the trays with clean white paper, for the moths to lay on. The male nympha are much smaller than the female, and are in general about one half their weight. Their existence in the moth state is but brief; the female lays her eggs soon after she assumes her wings, and dies a day or two after; the male frequently drops off before the female has finished laying. The moths eat nothing; they flutter about with their wings, but do not fly; and are by no means admirable for their external appearance, being ordinary in shape, and almost entirely of a pale yellow, or mealy color. The eggs should be put away in a drawer, or other secure dry place, upon the papers on which they are laid, for use, in the following spring.

When silk-worms are bred to a large extent, the females are placed to lay on a coarse cloth, and when the eggs have acquired an ash color, the cloth is immersed in fresh water, which dissolves the mucilage that makes the eggs adhere; they are then collected, properly dried, and carefully preserved for the following year. Particular care should be taken that the trays for laying be not only out of reach of cats and birds, but that they be not placed near cobwebs, lest the moths should crawl out, and become a prey to the spider.—*Genessee Farmer.*

ART. XLIX.—*Annual Increase of Seed.*

The fertility of nature in the production of seed is almost incredible, and is a circumstance well calculated to display the immense quantity of life that may spring from a solitary embryo. In no instance is the unbounded liberality of nature more manifestly exhibited, and cannot fail in exciting our admiration, and satisfactorily explaining that extensive diffusion of vegetables over the face of the earth. To elucidate this fact more clearly, I shall here very briefly introduce a few of those plants which stand foremost in point of fecundity; in the mean time, availing myself of the observations of an eminent naturalist on this subject. A single stalk of Indian corn (Zea Maize) has been known to yield in one summer, under favorable circumstances, 2000 grains; though frequently producing from 800 to 1200 grains. In the same period, a plant of Elecampane *(Inula helenium)* produced 3000 seeds. The common Sunflower (Helianthus annuus) generally produces about 4000 seeds. The usual produce of the White Poppy (Papaver somniferum) is 32,000 seeds. Each capsule of the Vanilla contains from 10,000 to 15,000 seeds. Mr. Ray, an English botanist of considerable eminence, who flourished near the close of the seventeenth century, informs us, from actual experiments made by himself, that 1012 tobacco seeds are equal in weight to *one grain*, and that the whole number of seeds in a luxuriant stalk of tobacco is 360,000. The same learned naturalist estimated the annual produce of a single stalk of Spleen-wort (Asplenium) to be upwards of one million of seed! It has also been ascertained that a single Thistle seed will produce at the first crop 24,000 seeds; and consequently, allowing each embryo to be evolved into active life, five hundred and seventy-six millions at the second crop!! It may here be proper to remark, that to each seed of the Thistle, as well as to the seeds of many of the compound flowers, is attached a feathery or silk-like crown, by the French called aigrette, admirably adapted to its dispersion by every passing breeze, and cause it to "wing its way" not only to remote fields, but even to distant climes. It was no doubt in allusion to this astonishing fertility of the Thistle, and remarkable facility of migration in its seed, that led Virgil to exclaim, the "Thistle becomes dreadful in the corn-fields." Through a period of long, dark, and almost undefined ages, we contemplate with no small degree of astonishment, the multiplied existence of millions of beings that people this "huge rotundity we tread upon;" but when we advert to the vegetable kingdom, and there trace the rapid ratio of increase which nature resorts to, in maturing and propagating seeds for a future progeny, we are almost bewildered at the contrast, and are at once prepared to account for that wide dissemination of plants over our forests and fields; thus increasing the cares of the farmer, and constituting a pest which he finds difficult to exterminate.

A BACKWOODSMAN BOTANIST.

Farmer's Jour.]

[For the New-York Farmer.]

ART. L.— CULTIVATION OF THE VINE.—*Mr. Wilson, in answer to Mr. Loubat.*

Mr. EDITOR.—It is with great pleasure I have observed, in the last No. of your Repository, the very interesting communication on the progress of the European Vine culture, from the pen of Mr. Loubat.—The strictures which it contains on the writings of other cultivators, particularly those of Mr. Prince and my own, for the neglect we have shown in our total silence, either in referring to his vineyard, or paying that marked respect which Mr. Loubat's great exertions in this species of culture justly entitled him to expect, he certainly had a good right to express. As it respects my own conduct in this matter, I must candidly confess that, however insignificant my opinions on this subject may be in the eye of the public, the honor which Mr. Loubat has paid them in correcting me, justly entitles him to my thus publicly apologizing for that want of due respect to him, which in my writings on the subject of Mr. Bonsall's letter, &c. in your last No. I have actually, although very unintentionally, shown. For, whatever the ultimate results of Mr Loubat's labors may be, his exertions to accomplish the successful cultivation of the foreign vines in this country, certainly entitle him to share a degree of credit for the promotion of this interesting branch of culture, at least, equal to any other individual in America.

Gladly would I pursue this subject, as I am well convinced there is necessity for much still to be said and done, but the enrapturing notes of the blue bird unstrings the writing muscle. At the sound of such delightful music, the hand of the gardener is instinctively decoyed from the pen to the pruning knife; and for some time, I must now bid you and your worthy correspondents an affectionate adieu,

WILLIAM WILSON.

Murray Hill Nursery, March, 1831.

[For the New-York Farmer.]

Art. LI.—*The Passion Flower and Snow Drop.*

Mr. EDITOR.—Unoccupied as the pages of your Farmer are with advertisements and matter, foreign to the useful subjects to which your publication is devoted, still I do not feel much reluctance in asking a corner for an insertion of the subjoined beautiful effusion from the pen of J. H. Bright, as also a few stanzas (author unknown) on the SNOW DROP.

LANSINGBURGH.

After the crucifixion of their Lord, the 11 disciples retired to one of the mountains about Jerusalem, where they remained all night. In the morning they discovered a flower before unknown to them, which, from

its singular conformation and mysterious appearance, they denominated the PASSION FLOWER.

Letters from Palestine.

Gone was the glory of India's crown,
And quench'd that promised star,
Before whose light the nations should fall down,
And worship from afar.

And night came over Judah; deeper gloom
Shadow'd that feeble throng,
That now to Carmel, from the saviour's tomb,
Wound mournfully along.

Through the long, moonless hours they linger'd there,
Wet by the dews of even,
And, on the viewless pinions of the air,
Their prayers went up to heaven.

And ever, when the shifting breezes stir'd
The pliant boughs of palm,
Or nestled in her tree th'unquiet bird,
Breaking the midnight calm.

Their quick ears caught the melancholy sound,
And a dejected eye
Amid the deepen'd shadows wandered round,
As if the Lord drew nigh.

And then upon their aching sense would press,
That loud, unearthly cry,
Wrung from their master in his last distress
Of mortal agony.

Morn glow'd upon the mountain; strange bright flowers,
Like diamonds chased in gold,
That ne'er before had shone in fields or bowers,
Their mystic leaves unfold.

And in each blossom, lo! the cross appears,
The thorny coronal;
The nails, the pillars, and the Roman spears;
A glory circling all.

Then, sacred flower! their grief was changed to praise
And drooping sorrow fled,
Since he who bade the bloom, they knew, could raise
Their Saviour from the dead.

Three days within the grave's unbroken gloom,
The hope of Israel slept,
Three mournful days around his guarded tomb
The holy watch was kept.

And from that hour, where'er thy buds expand,
Thou art of flowers the pride,
And, nature's witness to all time, dost stand,
Of him the crucified.

THE SNOW DROP.

Say not I'm cruel, when for you
I stole this flower to-day—
This little snow-drop sweet to view,
Whilst glistning with the morning dew,
And bore it far away.

My bosom did with pleasure glow
When first the flower I spied,
Peeping so slyly through the snow—
And seeming when the wind did blow
Its little head to hide.

Virtue and Innocence combined
In this sweet plant you see;
It is of flowers of every kind
The fairest emblem I can find
Of Truth and Purity.

ART. LII.—*Mode of grafting on the large Branches of old Trees.* [Extracted from the Books of the Aberdeenshire Horticultural Society.]

I beg leave to submit to your consideration a mode of grafting upon old stocks, branches, &c., of any size. The method is simply this:—— Having headed down your tree, take a scion and place it upon that part of the stock where it is meant to insert it. Cut upon both sides lengthways, through the bark to the wood an inch or more long, directly opposite each other; then cut across between these at the bottom, observing to have it rather too little than too much. Raise now the bark between the incisions, by a bone or ivory wedge, or the handle of a budding knife, &c., as most convenient; which will be easily done, as the wood and bark will easily separate when the sap has arisen, when the void will appear as a mortise. Prepare now the scion, as in the common way for whip grafting, by cutting away one side; then paring away the rind or outer bark on both sides of the transverse section, making the lower end square; so that, when placed in the mortise, it may fill the place exactly as a tenon, the end uniting closely with the bark of the stock.

Tie now with matting in the usual way, observing that if there is a vacuity between the scion and bass, in consequence of the bark of the stock being thicker than that of the scion, it will be necessary to place something above that part of the scion, so as the void may be filled up, that the tying press it tight. If the operation is performed on branches rather *low horizontal*, clay is to be preferred as a plaster; if above, pitch, &c. (or grafting wax), in case capillary attraction is necessary. By capillary attraction, I mean having a bottle or jar for the purpose of holding water; a bit of cord or narrow selvage of cloth, from 24 in. to 36 in. long, as a conductor, the one end immersed in the water, and the other end turned once or twice round the scion; the vessel for the water to be filled as often as necessary.

By this mode I have no doubt that cuttings, even from America or India, if kept moderately moist (damp) the passage, will in most instances succeed.

In the latter end of the month of March last, a cutting of a new particular pear (Duchesse d' Angoulême) was sent me from the Horticultural Garden of London. When received, the buds were 1 in. long, and perfectly blanched from the lateness of the season, and the package having been in damp moss. I cut the shoot in two equal parts, and wrought them in the manner above described. The buds in the course of a day became quite black and died away; I had then recourse to capillary attraction. By the first week in May, the top or uppermost part began to push from the *side* where the former bud was; and about the middle of June the lower part also.

This operation, to be denominated *mortise-grafting*, has been witnessed by the secretaries of our Society at different periods of the season; and the same method was pointed out to Messrs. Stevenson and Fraser, the former of whom, to my knowledge, has adopted the plan with equal success this season.

To the size of your stock may be proportioned the

number of your scions, say from half an inch to as much more as you please between. When capillary attraction is had recourse to, it will be most advisable to use the pitch composition, as the constant current of water loosens the clay.

I am, &c.

ALEX. DIACK.

[We should suppose a farm on a similar plan to the, following, would succeed in the vicinity of New York, particularly if provision should be made, for the instruction of youth, designed for agriculturists. *Ed.*]

ART. LIII.—*Stock Farm in the Vicinity of Boston.*

We have seen and perused, says the editor of the New-England Farmer, with much pleasure and entire approbation a "*Prospectus of a proposed Stock Farm*," to be established in the vicinity of Boston, and to be "devoted to the important object of breeding and rearing the the best breeds of horses, Neat cattle, Sheep and Swine; the receiving and selling on commission all kinds of live stock; and combining with these the business of Agriculture and Horticulture, upon the most approved and economical system. The business also of diciplining young and refractory Horses," &c, and it is proposed moreover, if sufficient encouragement should be given that a well educated Veterinary Surgeon may be attached to the establishment. The whole will be under the care and superintendence of Col. SAMUEL JAQUES, of Charlestown, whose name alone is a sufficient guarantee that it will be conducted in a judicious and enlightened manner. His qualifications for such an agency are too well known and highly appreciated by every person, who is in the slightest degree acquainted with the recent improvements in agriculture which have conferred such important advantages on the northern section of the United States, to require any encomiums from us.

This place will be not only a *Stock Farm*, but a *Pattern Farm* and a *Sample Farm*, in which the best specimens of every kind of improvement connected with with the arts of Agriculture, Horticulture, and every species of Rural Economy, will be illustrated by inspection, explained by exhibition, and shown to be practicable by ocular demonstration. Those who may not comprehend theories, or may not believe statements will there be furnished with evidence which cannot be contradicted, and explanations which cannot be misunderstood. The whole farm, together with its buildings as well as its stock and utensils, will furnish a Lyceum, Arena, or Hall of Agricultural and Horticultural Science, furnished with appropriate apparatus, which will always be open to the public, and in which lessons will be given gratis from which the most scientific may derive profit, and the most ignorant may fully comprehend.

It is intended to have concentrated at this farm the most esteemed varieties of animals now known in Europe and America. Liberal and intelligent Merchants, Officers of the U. S. Navy, Captains of Vessels, &c, will find on Col. Jaques' Stock Farm, a place where they can deposit whatever productions of foreign countries, such as rare and useful animals, plants, &c. they may be disposed to import either for their own emolument, or for the benefit of their country. But the advantages to be anticipated from an establishment of this kind, are too obvious and too numerous to require or to admit of recapitulation. We are therefore happy to perceive that the plan is warmly recommended by the Trustees of the Massachusetts Agricultural Society and by the Hon. JOHN LOWELL, late President of the Society; and that the liberal and enlightened capitalists of Boston and its vicinity have taken such a number of shares in the establishment, that no doubt remains of its being immediately carried into effect.

Since the foregoing was written, we have received the following letter from His Excellency Gov. LINCOLN, whose opinion on agricultural subjects is worthy the highest consideration.

Boston, March 8, 1831.

COLONEL JAQUES.

SIR—Having examined your proposals for the establishment of a Stock Farm, I take great pleasure in expressing to you my cordial approbation of the plan, with my best wishes for your success, in so important and interesting an undertaking. With the skill and experience which you possess, in the rearing and management of stock, the public will have a reasonable assurance that there will be the best selection of domestic animals of every desirable race; and in the variety which such an establishment will present, the occasions and preferences of Farmers for Breeds of Cattle suited to different objects, will be abundantly satisfied. I know of no arrangement in rural affairs more important than that by which the properties of the breeds of domestic animals may be fairly tested by comparison with each other, under the same course of keeping and management. No two breeders will be found to feed and treat their stock in the same manner. Hence the great uncertainty, as well as diversity, in the results of practical observation. Inferior animals, by more care, are often made to appear better, and give a greater product than others of decidedly superior qualities, with less attention. But by collecting individuals of different races into one establishment, and subjecting them to uniform treatment, under the same careful inspection, their characteristic differences will be ascertained, and the peculiar properties which recommend them for different uses and purposes of economy, will become well understood. The Feeder will learn how to select for the pasture and the stall. The Husbandman, who looks for strength, activity, and hardihood under the yoke, will not meet frequent and mischievous disappointments; and the Dairy will be sure of its products.

The benefit of such opportunity for comparison and for selection, in conformity with the particular interest of each purchaser, will be equally experienced by those, who are engaged in the rearing of Horses, Sheep, and Swine, with all which, as much as with Horned Cattle, it is now well understood, there lies the entire difference, in different breeds, between utter worthlessness, and great productiveness and value. Indeed I cannot but indulge much confidence, both in the utility of your scheme to the public, and in its rewards to your own excellent spirit and enterprize. I mean this remark should apply to your whole plan; as well to the part which respects the course of Husbandry proposed on the land, as to the breeding and keeping of Animals; although, as I am not acquainted with the precise character of the Farm which you have selected, I beg to decline offering any opinion, as to the particular purchase, or the amount of the investment, which may be required for the Establishment. Your ob't. serv't.

LEVI LINCOLN.

ART. LIV.—*Improved Farming Utensils.*

Roller.—A system of husbandry, such as has been described in the preceding essay, cannot be carried on to advantage with the ordinary plough and harrow: the profit of the row culture, depends essentially upon the labour saving implements proper to it; and the general condition of the old improved lands of the state of New-York, warrants the immediate introduction of other implements than those in common use. Amongst these the roller is of the first importance, to make loose soils compact—to break the clods of clayey lands, and others which have been plowed under unfavourable circumstances, as well as to roll seeded lands, intended for meadow and pasture, and winter crops in the spring of the year, which are partially hove up; indeed this instrument is essential to good husbandry, and is not expensive.

The body of the roller may be formed of a stout tree, and dressed down to a diameter of from twenty to thirty inches: the frame and perch should be formed of seasoned wood: if it is intended to use it with oxen, which is the best plan, the perch should be constructed with that view: any country blacksmith can make the gudgeons and iron work, and the whole expense need not exceed six dollars.

Harrows.—There are various descriptions of improved harrows, consisting of two or more harrows joined together by a crank or hinge. These instruments lap snug to the ground, when it is in rounded lands, where a single harrow would only act partially; this effect is remarkably produced by what is called the chain and screw harrow, where by lengthening the chain which crosses the two, a ridge may be completely stirred; and by securing the chain tight, it will act as one harrow on level ground. The efficacy of all harrows depends on the width of the bulls or bars, and weight and length of the teeth.

Horse Hoe.—This is a small plough with two expanding mould boards. Roots or corn, cultivated in rows, two and a half to three feet apart, and slices taken from the rows or ridgelets by a small dressing plough, are afterwards earthed up, by setting the horse hoe in the centre of the furrow, and returning the slices, after they have lain long enough there, to the ridgelets. When this operation is carefully done, hand hoeing is never wanted.

Drill Barrows—Turnip seeds are sown with these implements, which no doubt will soon be accommodated to Indian corn. When the ridgelets are properly formed, and are without any obstructions, an industrious man will sow five acres a day with a drill barrow, which with the hand would certainly occupy him ten days. There are various sorts of them; some of them are preceded with a small roller and a horse to flatten the ridgelets.

Drill Ploughs.—These valuable instruments, are used in Great Britain upon a large scale, having a drill box attached to them, from which the wheat falls into the furrows, in a regular manner, as they are made.

The Paring Plough.—This instrument is used to pare the sods from the ground, preparatory to sacking and burning them. The paring plate is made of iron, laid with steel, about four inches wide, and from twelve to eighteen inches long: it is made to cut on the sides.

The Cultivator, or Scuffler, or Grubber.—This is a triangular instrument, formed of a cross bar and two expanding bars, which bolt into it at various distances. It has a small wheel at each angle; three flat shares on each side, resembling trowels, connected with the bars by means of an iron leg, and a seventh share constructed in the same manner at the nose and behind the front wheel. When a sod fallow has been once ploughed, and got tolerably mellow, the cultivator is introduced at its greatest expansion, and breaks the slices; it is contracted gradually in width as the sods are broken, until they are all racked to pieces. A man and a boy, with a stout team, it is said, will do as much effectual work in a day, as six ploughs: its property of contracting and expanding enables it to work land either in a coarse or fine state. Four oxen are a complete team for this instrument.

The Scarifier.—This is an instrument with two handles and two cross bars, at a moderate distance, containing each from ten to sixteen sharp coulters, and a beam fastened to the bars with a small gage wheel at the end. It is used much for the same purpose as the last, and is an excellent instrument for stirring a stubble preparatory to tares. Both these instruments may be reduced in size, and number of teeth, so as to accommodate them to the drill and row culture.

[The above is from the 1st Vol. of the Memoirs of the Board of Agriculture of New-York.]

Threshing Machine.—There are numerous machines for threshing. Among those that can be had in this city, are Emmons', Warren's, and Beecher's.

Corn Sheller.—This is a very convenient article. There are several kinds. The one sold at the Agricultural Repository, 183 Front-street, is very generally used.

ART. LV.—*Carrots for Horses.*

In the summer of 1829, I became possessed of two horses, that were so lean and ungainly in their appearance, that they would have caused a "Rozinante" to blush for the degeneracy of his race. A neighbor of mine advised me to feed them on carrots: I did so—and their rapid regeneration equalled my most sanguine expectations. I continued this diet until they were in what is called good order; when having occasion to travel about four hundred miles, I resolved to ride one of the horses and have the other put to work. Before I got to my journey's end, however, I found that the horse on which I rode was losing flesh faster than he before had gained it, for which I was at a loss to assign any adequate reason; I finally concluded, however, that he was unwell. Having with much difficulty rode him home, I was surprised to find the horse which had been worked, poorer, if possible, than the "bony steed" which I bestrode—the former having been fed entirely on carrots. I communicated the circumstance to a gentleman in the neighborhood, who had been a drover for a number of years, thinking that he might probably account for the phenomena.

From him I learned, that whenever he became possessed of a poor horse, he immediately dieted him on carrots, mixing with them a little *oat* or *corn meal;* or else, after fattening them on carrots alone, he always fed them on meal, for two weeks, or more, before driving or working them; because, from the rapidity with which they acquire flesh, when fed on

this esculent, their flesh is not solid. This I subsequently found to be the case.

As you truly observe, horses will fatten quicker on carrots than on any other diet, but I would recommend that they be chopped fine, and mixed with meal, as their flesh, when fatted in this manner, will be much more firm and durable.

Rochester, Feb. 21, 1831.

[*Genesee Farmer.*

ART. LVI.—*Olla Podrida*,—By the EDITOR.

Profitable Management.—A general rule among farmers should be, to keep the best and sell the poorest living productions of a farm. The most indifferent fowls, pigs, lambs, and calves should be selected and sold. The best kinds of seeds and grain designed for sowing, should be preserved. The choice butter and cheese, the best of the hams and salted meat, and the finest domestic cloth should be sent to market.

Patriotism. The ladies are more benevolent than the gentlemen, but not so patriotic. The latter are always devising plans to benefit their country. The former should imitate them. Let, then, every lady do something to extend the cultivation of the mulberry, and the rearing of the silk worm.

Neatness, in person and in all domestic arrangements, is an indication of a well regulated and contented mind. Some minds, however, are always excited and disturbed because this and that are not exactly in their place. Neatness in dress and evenness of disposition make an amiable character.

A Mulberry Orchard, in Connecticut, causes a $2000 farm to bring $3000. Many a farmer, had he five years ago set out an orchard of this kind, might enter upon the duties of the present spring with brigher prospects.

Improvements but not *great discoveries* should be expected in cultivation. The application of steam to the purposes of tillage will be a great improvement in agriculture.

Mowing Machines. The ingenuity of mechanics has, for a number of years past, been exerted in the production of threshing machines, many patents of which have been taken out in this country. A mowing machine is a great desideratum. Mowing is the hardest work done on a farm. A good machine would save much expense and much hard labor—prevent vast quantities of hay and grain from being injured, and thus tend to benefit all classes.

Favorable Times for Farmers.—Many articles of the produce of this section of our country, bear a good price. Sugar, coffee, tea, and many other articles which farmers are obliged to buy, have either in reality or prospectively, become considerably cheaper.—*Apropos*—farmers can better afford to take an agricultural paper.

African Snake Eater, Falco serpentarius.—This species of bird is long legged, peculiar aspect, resembling a wader rather than a bird of prey. It inhabits dry open plains in the southern parts of Africa. It feeds on reptiles. Le Vaillant found in the craw of one of these birds, twenty-one young tortoises, three snakes and eleven lizards. Besides these there was a large ball in the stomach formed of the scales of tortoises, vertebræ of snakes and lizards, legs of locusts, and the wing cases of coleopterous insects.

The Collared Shrike, Lanius collaris, abounds in Africa. It seizes upon locusts and small birds, and suspends them upon thorn bushes by driving the thorns through their heads. When hungry he goes and takes his meals.

Strength of the Ostrich.—Adanson relates the following as having occurred at a French factory, on the banks of the Niger in Africa. "Two ostriches which had been about two years in the factory, and although young, were nearly of their full size, were so tame that two little blacks mounted both together on the back of the largest; no sooner did he feel their weight, than he began to run as fast as possible, and carried them several times around the village, as it was impossible to stop them otherwise than by obstructing the passage. This sight pleased me so much that I ordered it to be repeated; and to try their strength, directed a full grown negro to mount the smallest, and two others the largest. At first they went at a tolerably sharp trot, but when they became heated a little, they expanded their wings as though to catch the wind, and moved with such fleetness that they scarcely seemed to touch the ground."

The Gigantic Stork, Ciconia argala, is found in the interior parts of Africa. It has a voracious appetite, and is protected by the inhabitants for its services as a scavenger. Smeathman gives an account of a tame bird of this species. It regularly attended the hall at dinner time, and stood behind its master's chair. Frequently helping itself to what it liked best, one day it darted its enormous bill into a boiled fowl and swallowed it in an instant.

Plants in America.—Catesby, as far back as 1767, observed that a small spot of land in America had, within less than half a century, furnished England with a greater variety of trees, than had been procured from all other parts of the world for more than a thousand years previous.

Rose Bugs—Mr. Prince, in his treatise on the Vine, recommends to plant rose bushes near grape vines, which are liable to great injury from these insects. The bugs will leave the vines and attach themselves to the roses. By taking a basin of water, and knocking them off into it with a stick, they may be destroyed.

Zoophytees.—Professor Jameson observes that this class of animals "although the lowest in the scale of animated beings, are yet highly interesting in the sublime plan of creation. Their numbers exceed all calculation,—the minuteness of many species is such that they are not to be discriminated by the aid of our most powerful microscopes,—they form one extremity of the zoological scale of magnitude, of which the other is occupied by the gigantic whale of the polar regions. The coral-reefs, rocks, and islands are formed of very minute zoophytes. These reefs in some regions of the earth have been found for a *thousand miles* in length, *forty to fifty* in breadth, and to depths sometimes *unfathomable*." *They* verify the saying, '*united* we *stand*;' the *whale*, '*divided* we *fall*.'

[We recommend the following to an attentive perusal by our readers. Much of it is applicable to this latitude.—Ed.]

Art. LVII.—*Observations on the Apathy which pervades the community of the Southern States, relative to the improvement of Agriculture. By a* Rustic. [To the Editor of the Southern Agriculturist.]

" Columbia, January 10th, 1831.

Dear Sir,—Although this is addressed to you, it is not intended for *your* benefit; for it is very evident, that you are sufficiently alive to the necessity of efforts being made in these Southern States, for the improvement of their agriculture, to render such a paper of any use to *you*. Its object being the benefit of South-Carolina and neighbouring States, I beg you will insert it in your extensively circulated periodical, for the public good, which it may produce, if attended to, and I do not mistake the correctness of the views it holds forth.

Notwithstanding the valuable communications which a few individuals occasionally send you for publication, it must be confessed that we are universally deficient in due and efficient exertions for the ameliorating of our condition, by extending knowledge, and affixing scientific basis to our agricultural pursuits. It would seem, by our apathy, in this respect, that agriculture was to us scarcely even a secondary consideration, a pursuit, the objects of which, ignorant men may be allowed to prosecute, as these are harmless and cannot affect society materially either in good or evil! Indeed, some who consider themselves the better class of society, appear to act as though the tilling of the soil was an abject and merely mechanical calling, nearly useless and only allowed to exist by sufferance. It might be thought an invidious retaliation in me, who belong to this tilling class of men, to point out the consequential airs of the cits, whether belonging to the counter or the various *bars*. We might acknowledge their undoubted superiority over us, by the greater, or indeed, the almost exclusive countenance they receive from legislative enactments. Do we not see, in fact, that ninety-nine hundreths of the laws passed, are for their benefit, and that poor agriculture is left to shift for itself, and never receives the protecting and encouraging help of government, so as to enable it to meet the other professions on an equal footing. I must have been much mistaken when I selected it as a pursuit calculated to produce benefits to the country. It is at all times, a hard task for a man to acknowledge his errors, and almost persuaded as I am of mine, in this case, I can scarcely bring myself to confess it. Still I allow that every circumstance demonstrates clearly that my choice was founded in error, since the collected wisdom of the country declare it so by their absolute neglect of the one, and its extreme watchfulness over the welfare of the others. In fact, are there not extensive and richly endowed institutions, with well paid professors, for the promotion of all useful knowledge, in divinity, law, commerce, and medicine? Surely, if agriculture was of any value in this country, as it is in some others, establishments for its promotion would have been formed, or, at least, some professorship attached to some of the other institutions, intended to exalt this neglected object. What are the banking institutions, the officers, the fortifications, the light-houses, and the navy itself, but establishments for the protection of commerce? What are all the officers of the judicial department, with high salaries, but for the comfortable support of the incumbents, together with the promotion of the good they may do, perchance, to such of the community as, unfortunately for the greatest numbers of them, have dealings with them? It is admitted that despised agriculture is not excluded from a chance of the benefits that may accrue from these several favorite establishments; but there is not one, that I know of, supported by government for its encouragement. We have, it is true, some few agricultural societies throughout the State; but without the fostering hand of power, without funds, what can they do? Yet they do some good, about one hundreth part, probably, of what they might do. It must be, however, infatuation on the part of those persons who keep them up; for what has become of the United Agricultural Society of South-Carolina? It has died of inanition, and if the existence of such societies had promised any advantage at all to the community, would it have been suffered to perish thus miserably, as it has, in the very arms of our assembled wisdom? Notwithstanding all these unanswerable proofs of the worthlessness of agriculture, my habitual and rustic obstinacy will not yield, and it continues refractory to the superior sense and polished reasonings of the followers of the more favored professions. You must not suppose, Mr. Editor, from all I have said, that I blame these valuable citizens here alluded to. No, they take care of themselves and of their concerns, and if they do not carry their views further, I exculpate them of any sinister intentions; and, indeed, it would seem strange that persons, who from their habits and pursuits, know little or nothing of the profession, the neglect of which I deprecate, should take a very active part in promoting its interests. Those most to be blamed, assuredly, are the very professors of the slighted art whose cause I would attempt to advocate. They are most undoubtedly those whose business and duty it is to procure for their profession the assistance it needs. What is it that keeps them so blind, I will not say, to their own interest; but, as I do not acknowledge myself convinced of the contrary, I must say, to the very best interests of their country? How I regret I have not the skill of those belonging to that profession whose chief business it is "to make the worse appear the better cause." I might then do what I think far more righteous, make the better cause really appear such. It might, perhaps, be shown with some appearance of reason, that a country without inhabitants, whatever be its capabilities, is a very poor one, even for the favored professions. The community might, perhaps, be made aware, that to this neglected agriculture they are indebted for every thing that renders civilized man superior to the savage. That not only their food, clothing, &c. &c. but their very existence as a people depend almost solely upon it. The great city of Charleston itself might perceive, to its utter astonishment, that without the country back of it, it would be only a miserable village of fishermen, and that as it is, almost its sole dependance for support and protection, at all times and under any circumstance, is to agriculture. And, pray sir, what do you think would be the effect of such a strange revolution in their knowledge and modes of thinking, if it could be operated? Do you suppose that they would again, in their exclusive wisdom, ship off to the North, hardy,

honest cultivators of the soil coming from Europe to their *hospitable shores?* Would they not rather make great exertions to induce emigration from foreign lands to our almost deserted middle country? Would they not, instead of going to the North, to be made dupes of for their money, come up with some of those worthy foreigners to form establishments which may hereafter prove not only sources of profit to themselves individually, and to the revenue of their native State, but also be the very foundation on which their existence may rest, they would, of course, have learned that a hardy and industrious population of cultivators of the soil, are the very bone and sinew of a country like this, in peace or in war, the very blood of its existence. They would exert their utmost efforts to prevent the emigration of their citizens, and to promote emigration from abroad, obtain from government means of doing these things, without which the government itself will, in time, vanish away. They would establish schools in which the most useful art of all, in my obstinate opinion, can be learned as well as others. They would not only form societies for the promotion of agricultural knowledge, but have them endowed liberally, without which their exertions can be only of small avail. They would establish experimental farms in which the culture of valuable foreign plants would be tested in various ways, and in different sections of the State. These experiments would be made by persons of skill, many valuable plants and useful animals might be imported from distant countries and inured to our climate. Individuals who, with the best possible intentions, are compelled to cease experiments for the want of means to prosecute them to successful issue, would thereby not only be saved from impending ruin, but incalculable advantages would be secured to the community by the successful result of experiments, the failure of which by an individual of slender fortune, was merely occasioned by the necessity of his attending to the objects of his immediate wants. Such a failure generally deters others from attempting the same thing. We should then have some right to complain, on very good grounds, that all the praises bestowed on our naval officers, consuls and ministers to distant countries, are only half deserved for bringing foreign plants, seeds, &c. to be naturalized in this; for they have hitherto almost invariably bestowed to the North those productions which cannot be cultivated there, except in hot-houses!! while the Southern States are scarcely ever thought of in the distribution. It has been for years past a source of vexation to reasonable men, to see such unreasonable dereliction of propriety. Several plants which, but for this infatuation, might at the present time be in extensive and profitable cultivation at the South, have been suffered to perish in the hot-houses, &c. at the North. There are also many plants which might prove sources of prosperity to posterity, and which therefore ought to be supplied from foreign parts at public expense; for they are such (at least some of them) which cannot benefit the individual who might import them; although they may become indispensable at a future day; and the expense of procuring them can be but comparatively trifling. As one of these, the cork-tree may be particularized, and the want of it, when the vine is extensively cultivated here, may be a serious obstacle to its further extension. An individual may import for curiosity, or the benefit of his country, a small number of them, a dozen or so; but thousands are wanted, and would undoubtedly grow luxuriantly in most parts of the Southern States, and add to its present ornament and future benefit. The same might be said of many other most valuable objects of culture; but it is needless to enumerate them here. I would not have you think, Mr. Editor, that I would advocate the benefitting one class of society at the expense of another. A State, like a family, can regulate its own concerns as it pleases; and the measures for increasing the population of a country, where it may be desirable, is surely an object of general interest for that particular country. The benefits arising from it, as also for its augmentation of individual as well as of public wealth, by the extension and improvement of its agriculture; the security thereby obtained of public tranquillity, external as well as internal, are surely objects of such public concernment, that the government alone can and ought to promote.

Is it not true, that for one family that removes to this State from abroad, at least fifty remove from it? Why is it so? Let me not be told that the richer lands of the West attract *unavoidably* our population. When agricultural men are comfortably situated, carrying on their operations with proper industry and suitable knowledge, they are too happy to wish for a change, the advantages of which are, at least, doubtful. Our soils are good, so is our climate. Our lands are cheap, and easily obtained for the settlement of numerous families; why then go elsewhere, to encounter, most probably, an unhealthy climate? Where is the patriotism of those who say "it cannot be helped," when the smallest exertion to prevent it has never been made? Where is their *amor patriæ*, the love of the very soil that witnessed their birth, and the sports of their infancy; their love of their children and their posterity, when they suffer things to go on thus to certain destruction, without taking one step to avert the impending calamity? Whence will you draw your power to suppress insurrection at home and oppose aggression from abroad, when you will have suffered, by your own indolence and apathy, your own strength to be thus dispersed and wasted away? These are solemn questions, which every one may answer to himself as he best can; but at the same time it is the duty of all to act seriously, and put a stop to the destructive process going on under the protection of our negligence and blindness.

Rouse your energies, you men of the soil, claim your share of the expenditures of your government, whose coffers are filled from the proceeds of your labors; have your profession placed on a footing of true respectability, by placing it on the road that leads to perfection, and thereby save your country. Or go on as you have hitherto done, and your loss of freedom and independence is at hand.

It is passing strange that, with inferior means proceeding from soils and climates, our Northern neighbors are far exceeding us in the successful cultivation of those things for which we are so eminently situated! They are entering largely on the culture of the vine and the silk-worm, they have extensive flocks of sheep, they raise a superabundance of bread, meat, horses and mules, for their own use, and with the surplus of them they drain our purses. All these we might raise, at least, as far as our consumption may render it necessaay, and some of the articles, such as

wines, silks, olive-oil, wool, &c. might be, before long, most profitable objects of exports.

That time is past when we might have rested satisfied with two or three principal staple objects of exports, without aiming at an increase, either of them, or of our population. The world is progressing rapidly in industry and knowledge, we must not remain behind, and this we shall surely do, unless we make now the most vigorous efforts to regain our proper rank. See how power is accumulating in other parts of these United States by means most undoubtedly within our reach, if we will but avail ourselves of a part of our natural advantages. "Knowledge is power;" but like the productions of the soil, it must be planted, and carefully and sedulously cultivated, before it can produce a profitable harvest. We have all the materials for its successful production, let us not throw them away, on the contrary, let us make uncommon efforts to raise gradually, though energetically, a fabric which may serve to perpetuate our approximations to perfection; a fabric which will extend, not merely over ourselves, but over our latest posterity, an imperishable ægis.

These are not times that will allow of remissness; for as truly as it is that we are now too passive and regardless of our real interests, so truly will the direst calamities await us, if we neglect any longer to rise and be doing. Believe me, though these are only the admonitions of

A Rustic.

Art. LVIII.—*Farming and Gardening Operations for April and May.* Prepared by the Editor.

Preparation of the Ground.—The only suggestions which we can make respecting field-culture, is to have the work done at the proper time, and in the best manner. Seeds will vegetate readily in proportion to the favorableness of the circumstances. The ground should be well pulverized, so as to retain sufficient moisture to cause immediate germination, and to afford the young roots a protection from the extremes of wet and dry, and heat and cold. The success of a crop depends more on the *proper* preparation of the ground than many farmers are apt to suppose. It is easy to conceive how much struggling for existence must take place in a young plant, the seed-germ of which has been deposited among lumps of earth, even if they are no larger than peas. It must be important, therefore, that the soil be finely pulverized, and that the earth be closely pressed to the seed. To accomplish these objects, much attention should be given to harrowing and rolling. We find the latter very strongly recommended by good farmers throughout the country.

Every effort should be made to have the seed in the ground at a time when the moisture and temperature are the most favorable for starting germination, and sustaining the developement of the vegetating parts.

Spring Feeding.—Another subject, to which the farmer should pay particular attention, is to prevent his horses, cows, and sheep, from losing flesh about the time they are leaving their winter dry fodder for that of the green spring grass. Should there be a falling off about this time, and a scarcity of grass succeed, it will take the whole summer to restore them to a good condition. Owing to a scarcity of fodder in spring among many farmers, they are apt to scant their horses and cattle. But such a course is very injudicious and detrimental to their profit.

Manure.—Farmers should make it a point to get as much manure as possible in the ground in the spring. They thus save a great deal that is lost by evaporation, when the manure is left in the yard until summer, and then carted out into the fields. The decomposition, too, is more gradual in the spring, affording food to the plants according to their increasing wants.

Trees.—No pains and no reasonable expense should be spared by the farmer in setting out useful and ornamental trees around his house and along the public road. He should do this for his own interest and from patriotic feelings. Our fathers made sacrifices for their country with sword in hand. It belongs to their children to make them with the spade. The necessitous calls of our country are so few, that a patriotic spirit is in danger of becoming too quiescent. It should be said of no farmer, in any part of the Union, that he has not patriotism sufficient to set out a tree to ornament his house or the public road. The good of the country requires that a mulberry tree should be planted in every unoccupied corner.

The Garden.—Most hard labouring farmers have a disinclination to work in the garden. It adds, however, so much to the comforts and pleasures of rural life, that a taste for garden operations should be cultivated by every member of a farmer's family.

Artichokes.—The seeds should be sown early in April, in good rich earth, in drills one inch deep, and twelve inches apart. On the approach of winter, they should be covered with straw, and transplanted the following spring, in March or April.

Asparagus.—Seeds may be sown early in April, in drills, eight or ten inches apart, the ground being previously well spaded and manured. The beds should, every spring, be well loosened with a three-tined fork.

Beans.—English dwarfs should be put in the ground early in March; but if the season is late, the first of April may answer.

Kidney beans may be planted from April until August, either in hills or drills.

Pole beans are planted from April to June. They are liable to be injured by frost, if planted early.

Beets.—Sow the seeds in good mellow ground from April to June, sufficiently thick to admit of being thinned out. This should be done early.

Borecole and Brussels Sprouts—may be managed as cabbages, sown in May, and transplanted in July.

Brocoli.—The early kinds can be sown in April or May, in the open ground, if they have not been sown in a hot-bed, in March.

Cauliflower.—In the early part of April, the seeds can be sown in the open ground, and the plants pricked out in May or June.

Cabbage.—Let the seeds of the large early kinds be sown in a warm border about the 1st of April. In May the young plants may be transplanted.

The Savoys and late cabbages should be sown in April, and during first two weeks in May. Care should be taken to destroy the insects that are apt to invest cabbages.

Cardoon Artichoke.—In April sow the seeds in a bed of rich earth. Thin the plants to four or five

inches distance. Transplant them in June, four feet apart. Dress their tops and roots before transplanting.

Carrots.—The ground for this vegetable should have been manured for the previous fall crop. Sow the seeds in April or early in May. Thin out the plants to the distance of five or six inches. This root is much used in England for sheep, cows and horses.

Celery.—For a general crop the seed may be put in a rich mellow bed early in April. As soon as the plants are two or three inches high, they should be pricked out into a nursery-bed, and in about a month transplanted. The trenches for this transplanting should be spade deep, having the fine dung well mixed with earth at the bottom.

Cress—should be sown in small quantities, every week during spring, in clean rich ground.

Cucumbers.—About the first week in May these may be planted in hills, having a little fine manure in the bottom of the holes. To prevent the depredations of insects on the young leaves, sow tobacco-dust, soot, or powdered charcoal, around the plants, when they first come up. The first running bud should be cut off, in order to obtain a more stocky growth, and to have lateral shoots for fruitful runners.

Egg Plant.—About the middle of May the young plants should be taken from the hot-bed, and set out in rich warm ground, thirty inches apart. The white kind may be sown in a warm place the last of April.

Endive or Succory.—For early sowing, take the variety, green curled; put the seeds, at different times, into the ground, from April to July. The later they are sown the less likely to run to seed. If they are transplanted, let it be in cloudy weather, or have them immediately watered.

Garden Burnet.—The seeds of this choice salad may be sown early in April.

Leek.—Sow the seeds early in April in a bed of rich earth. Transplant last of June in rows, twelve inches apart.

Lettuce.—Sow in April in warm borders, and transplant in May. Coss lettuce should be blanched.

Melons.—For musk melons, prepare a piece of rich ground, well dug; at the angles of six feet square, make large deep holes, into which put well rotted manure, mixed with the earth; cover the dung so as to make broad flat hills; into these put a few seeds, covering them about an inch deep. Pinch off the top of the first runner-bud. Water-melons may be managed in the same way, except that the hills should be at a greater distance.

Mustard.—Sow in April or May, in rich ground. Several kinds are used for salads as well as for seed.

Nasturtium.—The seeds of the running kind should be sown in April or May, in drills near fences, or trellises. The dwarf kind in hills.

Okra.—In the first or second week of May, plant in rich ground, in drills, four feet apart, and two inches deep.

Onions.—The best varieties are the Strasburgh and Large Deptford Red. The White Portugal and Silver Skinned have a milder taste. The seeds may be sown in April broad-cast, or in drills twelve inches apart. The Welsh onion, Allium fistolosum, is cultivated for spring salad. The Potato onion is produced by planting the bulb like potatoes.

Parsley.—Sow early in April in drills, an inch deep and twelve inches apart.

Parsnip.—Put the seeds in drills early in April, if they have not been in March. The soil should be deep.

Pepper.—Sow in a warm border, the last of April, and then transplant eighteen inches apart; or sow the seeds in May, in drills, two feet apart.

Peas.—These may be planted in succession in April and May, in double rows, four feet apart.

Sweet Potatoe.—Plant them in a hot-bed early in April, about three inches deep. When the sprouts are three or four inches above ground, part them from the potatoe, and set them into hills, properly manured, and raised a little above the surface. The seed-potatoe, if left in the ground, will continue for some time to furnish sprouts.

Radish.—For early radishes, the seeds should have been sown in a hot-bed in March. To have a succession from the open ground, they should be sown about every ten days, from April until September. To prevent worms from injuring them, Mr. T. Bridgeman recommends salt, at the rate of three bushels to the acre, to be strewed over the ground, and either ploughed or well covered with the spade. If the salt is only harrowed or raked in, the quantity should not be more than one-third. Mr. B. found this treatment, last summer, to succeed well.

Horse Radish.—This is easily propagated from off-sets.

Rocambole.—The bulbs of this plant are considered milder in flavor than those of garlic. They can be raised either from seeds or roots. The seeds may be sown either in the spring or fall.

Rhubarb.—This valuable plant may be propagated either from off-sets or seeds, put in the ground early in April. The soil should be rich and deep. Every family should have at least a few plants for tarts in March, when scarcely any other green vegetables can be obtained, particularly in the country, among farmers.

Salsify.—This is called the vegetable oyster. The seeds should be sown early in April, in drills, twelve inches apart. When the plants are a few inches high, they should be thinned out to the distance of six inches.

Scorzonara.—This plant should be managed like the salsify, the carrot, and the parsnip, requiring a deep, rich, and well-pulverized soil.

Sea Kale.—In case they have not been sown in October, the seeds may be put in the ground at the commencement of April. They also may be propagated from pieces of old roots, one or two inches long, planted three or four inches deep. A rich, sandy loam is the proper soil.

Sorrel.—Sow in April and May. Old roots may be separated and planted. This is a good salad either raw or boiled.

Skirret.—This is propagated by seeds and off-sets, managed like parsnips, salsify, &c.

Spinnage.—Sow in rich ground in April. New Zealand Spinnage should be planted in hills. The leaves are fit for use during the whole summer and fall.

Squashes.—Planted in the latter part of April, and treated like melons. Early bush and vegetable marrow are good varieties.

Tomatoes.—Sow the first week in May, and transplant in June.

Turnips.—This is one of our most valuable vegetables. It is better, however, for field than garden culture, succeeding best on land newly cleared, and richly matured. For early garden crop, the seed may be sown in April. Like most other vegetables, they should be frequently hoed.

[For the New-York Farmer.]

ART. LIX.—*On the Increasing Consumption and Scarcity of Timber.* By R. L.

Sir,—Among the various subjects to which the attention of your readers may be usefully called, is that of the cultivation of timber trees; and the importance of preserving what we have of timber that is in an *improving* state; and of preparing for a future supply, when our present stock shall be exhausted, is not sufficiently appreciated by our contemporaries.

Very few even of the most thinking of our fellow-citizens are sufficiently aware of the rapid waste and destruction of our timber, and the length of time required to restore a supply. A year of famine may be succeeded by a year of most abundant supply, in articles of provisions; but after the destruction of the Pine, the Hemlock, the Oak, the Ash, the Walnut, ages and centuries must pass away to give time to restore them; and this very distant prospect of return will for ever keep the supply within the limit of demand.

Owing in part to the extension of manufactures and of commerce, but more owing to the spread of civilized man over regions hitherto occupied by forests, there has been more of wood and timber consumed and destroyed within the last fifty years, than in the preceding five hundred; and more of wood and timber consumed and destroyed within the last hundred and fifty years, than in the preceding thousand years.

The extensive use of coal, as a fuel, it may be supposed, will retard the waste and destruction of wood and timber. Not so. It will for a while keep down the price of wood as fuel, but the effect of this will be to make men less choice of their wood lands, less anxious to restore them, if once cut off, and less disposed to plant anew; and the facilities of transportation by canals and rail-roads, as it will afford a means of obtaining supplies from vastly more extended circles, will tend to keep down the price, and of course discourage the cultivation, until the civilized world will find itself deprived of an article essential to each and every of its thousand arts, and its boundless commerce.

The uses for timber will also increase for many centuries to come in the same proportion as it has in the last two or three centuries. The coming hundred years will require more than the past five hundred.

If the preceding views are correct, no investment of capital can be better than that of cheap lands, in the vicinity of navigation, adapted to the growth of choice kinds of timber, and to proceed to the immediate cultivation of it. In this pursuit none need fear competition. The distance of return, as before observed, will prevent all dangerous rivalry, and forever leave the market short supplied.

If any of your readers are disposed to enter upon this cultivation, they will want to be informed where the most suitable lands, in the vicinity of navigation, can be obtained at low rates; and they will, perhaps, want very particular and correct information as to the best methods of propagating and cultivating timber trees.

In answer to the first enquiry, I will say, that abundance of land, best adapted to the growth of the White Oak, and other valuable timbers, in the vicinity of navigation, can be had in this State (New Jersey,) and at low prices.

I cannot pretend in this essay to undertake to answer the enquiries comprised under the second head. Indeed, I should much rather be a learner, than undertake to be an instructor, although I have had some experience, having many thousand timber trees growing, which I have raised from the seed.

One remark I will make. Most trees will grow from the stump of the old, unless their cutting is delayed to extreme maturity; but it is not, perhaps, generally known to timber getters or timber users, that a growth from an old stump always has the principle of decay, and frequently the marks of it, at the heart; that such timber comes much sooner to maturity, and, when used in fences, buildings or vessels, much sooner decays, than timber raised from the seed. This my own observation has in part ascertained, but it has been much more confirmed by the observations and remarks of two aged citizens of this State, living remote from, and unacquainted with each other, one of whom cut off wood and timber, raised a crop of wheat on the land, and lived to see a handsome growth of timber from the stumps, which a single crop of wheat did not subdue.

If, from your own knowledge, or from some of your correspondents, or from some valuable works on the cultivation of forest trees, you can give the particular information required, you will doubtless confer a great and lasting favor on your readers, and on the country at large. My object is, not so much to inform, as to seek information, and to excite attention and enquiry. If this is deemed worth a place in your valuable Repository, I will endeavour again to be a correspondent.

Your's,

R. L.

Remarks.—The above subject is a very important one. We hope R. L.—whom we welcome to our columns—and others of our readers, will communicate all the information in their possession.—*Ed.*

[For the New-York Farmer.]

ART. LX.—*Management of Poultry.*

Break shells of oysters and clams to about the size of grains of corn, or smaller, and place where your barn-door fowls can have constant access. They will eat of this, and it greatly assists in forming the shell of the egg. To ensure success in the raising of poultry, the newest laid eggs should be gathered with the utmost care, to avoid any small break or fracture of the shell; the sitting hens should be each in a box or barrel by itself, so that they can be covered up, in order that they may sit undisturbed. Once a day, and that in the morning, they should be very gently lifted off their nests and fed, and the moment they return, be again covered. They will, in two or three mornings, become quite habituated to this order, and almost every egg put under them will produce a chick. The feed of chickens, and more especially ducks and turkeys, should be Indian meal, ground coarse, and mixed with *sour* milk.

[We like the directions given in the following communication from the N. E. Farmer, for the use of salt hay. In connection with roots it will undoubtedly be of much service to milch cows. Without succulent food we should suppose it would be beneficial to use it sparingly. Ed.]

ART. LXI.—*Salt Hay.* By L. CAPEN.

MR. FESSENDEN—I have no wish to enter the lists in the salt hay controversy. But I can state some facts, which may throw light on the subject, and serve in a measure to reconcile the apparent contradictions, that have appeared in relation to its value. From the several articles you have published, it is evident there is a considerable diversity of opinion, both on its intrinsic and relative value, not only with those who profess not much knowledge on the subject, but among experienced men and good judges. This arises, I presume, for the most part, from not duly regarding the fact, that there is very great variety of salt grasses differing essentially in value. I have many times seen extensive tracts of salt marsh covered with different kinds of short, hard and wiry grass, which I would not make into hay, and secure in mow or stack for the entire crop, unless in a season of great scarcity. Again, there are many kinds so valuable, that, cattle, horses and sheep being judges, (and I have always been in the habit of paying great deference to them as the best judges of the quality of hay,) I am not slow to believe they might even be preferred to English hay. For thirty-five years or more I have had opportunity to witness the value of salt hay, by feeding cattle or seeing them fed with it. My honored father the late John Capen, of Dorchester, raised much of the kind called *black grass*, from its dark color when growing, and made into hay, which, for milch cows, working oxen, and for horses occasionally, he used to consider but little, if any, less valuable, than English hay, if cut in the flower and well cured. There is a kind still better which from its light color I have been used to call *white grass*. I believe it is more properly called *goose grass*. It is a very early grass, usually found on solid marshes, by the side of creeks, or such as have been rendered more firm by ditching.

I know of marshes which a few years ago were so barren as scarcely to be worth mowing; which being intersected with narrow ditches two or three rods apart, have changed to this grass; and which produce an average, I should judge, of nearly two tons to the acre, of hay 'worth as much' (I say it not in jest) as English hay.

When I resided in Dorchester, about ten years ago, I hired a piece of marsh, where there was a considerable quantity of this grass. This was put into the barn promiscuously, with the other kinds. I once tied a friend's horse in the barn floor, by the salt hay mow side, and gave him a baiting of excellent English hay, as I thought. Going to the barn a little while after, I found he had rejected the English hay, and taken the liberty to help himself, having made a spacious excavation into the salt hay mow. This horse had long been kept near tide water on a farm where salt hay was no rarity. I wondered at the animal's taste. But in such a case, if ever, it was true '*de gustibus non est disputandum.*' There was no disputing with him in an affair of taste. Upon examination, I found it was the *goose grass*, he was regaling himself with.

These two kinds, the *goose grass* and *black grass*, when cut in season and well cured, are very highly and richly fragrant. They produce abundant crops, are very tender and soft to the mouths of cattle, and very greedily eaten. Many other kinds, of which I know not the botanic name, such as *blue grass*, a matted grass called *bottom grass*, the *short sedges*, &c. make excellent hay. The *fox grass*, a red topped grass, if not cut early, is too hard and woody, almost bidding defiance to steel or ivory. I have uniformly noticed, that cattle kept upon salt hay always look in good condition. While those kept upon fresh hay may generally be known by their long hair, bare bones, and thin and ghastly appearance.

There seems to be a very general prejudice against feeding milch cows with salt hay which I think is not entirely well founded. I would by no means recommend its exclusive use, nor do I think it so productive of milk as rowen, clover cut early and well secured, or the finer kinds of English grass. For the last twelve years, having lived near and owned salt marsh, I have very freely fed my milch cows upon salt hay, and am satisfied, that upon good salt hay, with the addition of a few vegetables, they will give as much milk, of as good quality, will hold out in milk as long, and keep in as good condition as upon common English hay, and the same quantity of vegetables. In the winter of 1824, I kept a cow chiefly upon salt hay of the common mixed kinds of grass, with the addition of from a peck to a half bushel of carrots, and usually some meal or bran, not exceeding two quarts of the former, nor half a peck of the latter, a day. The cow had given milk from the first of May and was expected to calve again in April. The milk she gave, during the three winter months, yielded a very small fraction less than seven pounds of butter a week, nearly as rich in color and flavor, as summer butter.

It is a well known fact that cows pastured upon islands, or near the salt water, where they can feed partly upon salt grasses, yield milk in abundance and of the best quality.

To conclude this article, which I have unexpectedly prolonged, I will refer the classical reader to a sentiment which has lost none of its value by age, though older than the Christian era. The correct doctrine upon the use of salt hay is laid down in Virgil, Georgic 3d. 394—and which the lover of milk, 'cui lactis amor,' will still do well to observe. Together with other succulent food he will furnish his cows with *salt hay* in their stalls. This will not increase their appetite for drink, and add to the *quantity* of their milk; but improve its *flavor*, by imparting a relish and thus correcting that peculiar freshness, often found in milk, which to many is very unpleasant.

South Boston, March 2, 1831.

[For the New-York Farmer.]

ART. LXII.—*Remarks on the opinion of Dr. Reynolds respecting the cause of Fire Blight.* By D. T.

The *fire blight*, so well described by S. Reynolds, is very destructive in several parts of this western country; and the discovery of a remedy seems essen-

tial to the existence of the pear tree. To determine the indications of cure, however, as in other diseases, it is first necessary to detect *the occasional cause;* for without this knowledge all our efforts must be directed at random.

Many opinions on this subject, have been given. Some have conjectured that it was caused by lightning; some by a stroke of the sun; some by insects; and Dr. R. has very logically supported a new idea, that it arises from the roots penetrating an unfavorable subsoil.

I have *doubts*, however, whether a bad subsoil is the true cause of this malady, and will briefly enumerate *them:*

1. Though the upper branches of trees which stand in wet ground, are commonly the first to suffer, yet a general and gradual decline is evident. On the contrary, *the fire blight* "always makes its appearance when the leaves are fully grown, and not unfrequently when the limbs are loaded with fruit." The sudden death of the branches, and their retention of the dead leaves, rather point to mechanical injuries.

2. On the first appearance of *the fire blight*, before the energies of the tree become exhausted, very vigorous shoots often spring from the lower branches,—such as arise from lopping, or *heading down*,—and indicate local, rather than constitutional injuries.

3. Other fruit trees besides the pear, suffer from *the fire blight*. In this vicinity, I have seen the disease most clearly developed on *the apple*, *the plum*, and *the quince* tree. Indeed the last is not less injured than the pear tree; and yet it is well known that *a moist or wet soil is recommended for the quince tree.*

4. Soon after *the fire blight* appears near a farm house, the old pear tree and the young pear tree, the plum tree, more rarely the apple tree, and more frequently the quince tree, all suffer in the same season. We can scarcely believe that trees of such different sizes and ages, should all simultaneously penetrate an unfavourable subsoil.

5. I have no recollection that any writer in Britain has mentioned *the fire blight* as occurring in that island. If I am not wrong in regard to this matter, and it proves to be peculiar to America, then must we search for the cause of this malady among things peculiar to America. But bad subsoils are not peculiar to America, for of these British orchardists often complain.

6. In the year 1823 I observed two or three feet of the top of a very thrifty tree in my orchard struck with *fire blight.* Without delay, I cut off the branches several inches below the dead leaves, carried them all to the house, and burned them immediately. From that day to this, there has been no recurrence of that malady in my orchard, which could scarcely have happened had it arisen from the subsoil. Another instance of this kind has been mentioned to me, as occurring in a neighbouring state.

The opinion that *the fire blight* is caused by lightning, will not bear examination. Those who have believed it to be caused by a stroke of the sun, appear to have mistaken the dead branches which sometimes occur on the south-west side of the tree, and which is evidently the effect of hot sunshine on the naked bark, for *the true fire blight.* That these appearances arise from different causes, I think the following considerations must render plain:

1. I found the *blighted* branches of a large pear tree, as numerous on the north side, where they were sheltered from the intense rays of the sun, as on any other side of the tree.

2. Other trees exposed to an equal or greater heat, were entirely exempt from the malady.

3. It has not been observed that *the fire blight* is more prevalent in hot seasons. We have had hotter summers than that of 1823, but no pear, nor apple, nor plum, nor quince tree of mine, has been affected by it since.

4. We can hardly believe that the sun would strike but one branch or tree the first summer, and then go on in succeeding seasons to damage or destroy pear, apple, plum, and quince trees, till not one healthy tree can be found in that vicinity. Yet such appears to be the general progress of *the fire blight.*

5. This malady occurs without reference to altitude or soil. At Aurora, 300 feet below my fruit garden, and at Poplar Ridge, nearly 400 feet above it, much damage has been occasioned by *fire blight*, but in this intermediate neighbourhood, I have observed nothing of the kind. Such an exemption could not be expected from the sun's rays.

I am disposed to adopt the views of the late Professor Peck, published by John Lowell of Massachusetts, that ☞ *the* GENUINE *fire blight* ☜ is the work of insects. I had been gratified by their opinions on this subject, a few months before I discovered the malady on my apple tree; and to their directions, promptly followed, I ascribe my remarkable exemption from a calamity which many of my neighbours have suffered. I believed that one whole family of these formidable insects perished with those branches; and should I be visited by another brood, which I am expecting, the same process shall be faithfully repeated.

Greatfield, N. Y. 3d mo. 1831.

[We are particularly pleased with some of the articles selected for encouragement by the Newburgh Society. The utility of Horticultural Societies depends very considerably on the kind of articles selected for premiums.]

ART. LXIII.—*Premiums of the Newburgh Horticultural Society for* 1831.

Best and earliest	2 doz. Asparagus,	$1 00
"	2 cucumbers,	1 00
"	1 quart strawberries,	1 00
"	1-2 peck potatoes,	2 00
"	2 heads of cabbage,	1 00
"	2 do. brocoli,	1 50
"	2 do. cauliflower,	2 00
"	1 quart green peas,	2 00
"	2 heads lettuce,	1 00
"	1 quart Lima beans,	1 50
"	1-2 peck bush beans,	1 00
"	1 quart gooseberries,	1 00
"	4 heads celery,	1 00
"	1 quart cherries,	1 00
Best	2 muskmelons,	1 00
Best and largest	watermelon,	1 00
"	egg plant furnished for seed to the society,	2 00
Best	2 heads late cauliflower,	2 00
"	2 heads late brocoli,	1 50
"	4 heads late celery,	1 00

"	1 doz. peaches,	2 00
"	2 doz. plums,	1 00
"	1 doz. pears,	1 00
"	2 bunches foreign grapes,	1 00
"	50 quinces,	1 00
Best and neatest garden,		5 00
To the Lady who shall present the most beautiful Bouquet of Flowers to the Society at their next anniversary,		3 00
For the second best,		2 00
For the discovery of the cause of and mode of prevention of the dropping of green fruit,		10 00
Best and earliest 2 heads of sea kail, in 1833,		2 00
Best specimen of Medical Rhubarb, properly prepared for keeping, not less than 25lbs. in 1834,		5 00
Best specimens of liquorice root, raised by a member of the Society in 1835, not less than 2lbs.		5 00

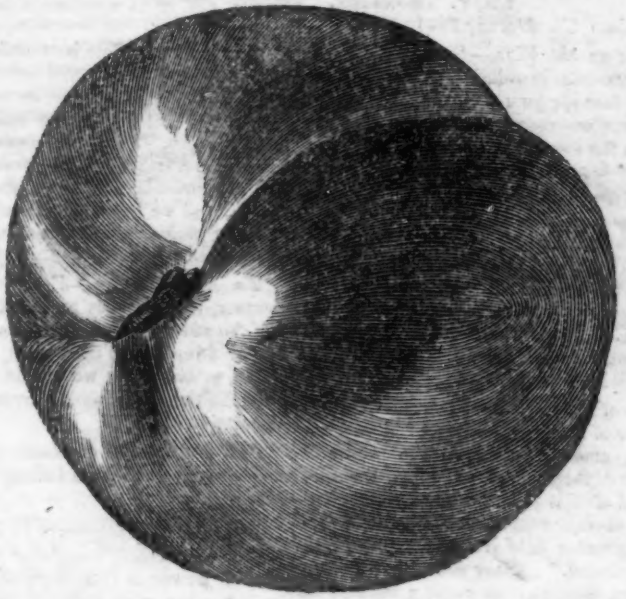
The Council may recommend discretionary premiums for such articles, not specified above, as they may think deserve encouragement.

No article to be considered entitled to the above premiums unless of extra quality or earliness.

By order. JOHN BROWN, President.

ART. LXIV.—*Description and Drawing of a Peach grown in the Garden of Nicholas Saltus, Esq. of this city.*

This Peach was exhibited last fall before the Inspecting Committee of the New-York Horticultural Society. It was first thought to be a seedling, but was afterwards ascertained to have grown from a graft. The committee, however, have not decided its appropriate and proper name. Mr. Wilson has furnished the following description:—



Size large, measuring 10 inches in circumference, weighing 9 ounces, form round, flattened towards the stem, which is planted in a deep hollow; colour a greenish yellow with bright red on the side next the sun, frequently extending around the cavity in which the stem is placed; the flesh is greenish; flavor and taste very good; deeply tinged with red next the stone, except the points of the protuberances that grow within its wrinkles which are white; the pit is large. It ripens about the first of October.

ART. LXV.—*Miscellaneous—Original and Selected.*

Premiums of the Rensselaer County Horticultural Society for 1831.—A premium of one dollar each are given to twenty-four kinds of vegetables. Nineteen kinds of fruit will receive premiums of one to three dollars. To the best garden, belonging to any member, regarding economy, variety of products, and profit, reported by the Inspecting Committee, $10. To the best nursery of the white mulberry, 1000 trees, three years old, hereafter to be planted in this county, $25. For the best 8 pounds of raw silk, to be presented in 1834, $20. On the anniversary of the Society, three premiums of 1 to $3 for flowers.

Premiums of the Albany Horticultural Society for 1831.—Upwards of thirty different kinds of vegetables are designated for premiums of one dollar each. Nearly thirty of fruit of the same sum. For the best varieties of greenhouse plants, premiums from one to four dollars.

Sun Flower.—MR. EDITOR: I observed in the 3d volume of your valuable publication, page 160, an article on the sun flower—its culture, products, properties, uses, and value. With its culture and products, I am tolerably acquainted; but I should wish further information on its value and uses, but more particularly on the mode, or rather improved mode, of extracting the oil. Any information through your paper on this subject, will be thankfully received by your subscriber. ED. P. THOMPSON.

Attleberry, Dutchess Co. March, 1831.

Prince's Treatise on the Vine.—SIR: Mr. Prince will transmit his comments, in relation to the "Treatise on the Vine," in time for your paper of the ensuing month—his numerous engagements preclude his paying any attention to the subject at present.

Linnæan Botanic Garden, March, 21, 1831.

Inspection of Flour in New-York.—Flour coming to this city from other portions of the Union is reinspected. The New-York mark injures the sale so much in foreign markets, that merchants in the southern and western states avoid as much as possible having their flour designed for shipping, coming to this port. The Journal of Commerce states that if the reinspection was removed, our trade would probably increase 200,000 barrels annually,

Encouragement of Silk Manufacture.—A committee of the House of Representatives of Massachusetts have recently made a report on the culture of silk. They say that they "have examined the subject attentively and find it to be of *much greater importance* than was at first supposed. They are *surprised to find how great a field is here open*, and *how long it has been neglected.*" They submitted a resolution authorising the Governor to cause a Manual on the growth of the Mulberry, with directions for the culture of silk, to be prepared, and distributed to every town in the state—six hundred dollars to defray the expense.

Bees.—The inhabitants of the new western states, when building their log-houses, form a moderately dark room in the garret for their bees. They attach their comb and honey to the logs.

Value of Apples.—We have noticed, during the present month, that our markets are supplied with extraordinary fine and well preserved apples. Newtown pippins have brought from three to five dollars a barrel. We should suppose farmers would do well at these prices—fully compensated for their trouble in preserving them.

Walks for Scholars.—Among the varied peregrinations which scholars in this city should make, frequent morning and evening walks should be taken to the gardens and green-houses. Among these are the beautiful and tasty establishment of Messrs. Thorburn and Sons, 67 Liberty-street, Mr. Kenney's, corner of Carmine and Bedford, Mr. Phelan, corner of Rivington and Allen, those of Messrs. Floy, Hogg, and Bridgeman, near the junction of Broadway and the Bowery. Teachers should encourage their pupils to visit these and various others in and near the city, enjoining them, however, that the most inviolable honor is expected in regard to even touching, much less injuring the plants.

American Silk—Satin Beaver Hats.—On a former occasion we referred to the Silk Hats, manufactured by Mr. Thomas Simms of this city. He now informs us, that he has made arrangements to manufacture any quantity of American silk that can be furnished, prepared agreeably to his directions. The demand for his hats exceeds the quantity of American silk which he has been able to procure. One gentleman, Mr. Bottom, near New-London, has entered into engagements to prepare and furnish all the silk he can obtain. Any person wishing to find a market for his silk, can make application to Mr. Simms, at No. 59 Canal-street.

We have one of his hats made of silk instead of fur, and find it the lightest and most pleasant we have ever worn. For summer wear he makes the sides of a porous texture, and thus the heated moisture from the head escapes. They preserve their colors better than those manufactured of other materials.

The demands for American Silk continue to increase, and we hope farmers will not be backward in planting mulberry trees, and in making arrangements to produce silk.

To Bleach Flax.—E. Quinby, in the Genessee Farmer, recommends to boil flax in ash lye of about half the strength necessary to make common soap, for two or three hours, then rinse it well in vinegar and water, or any other weak acid preparation, and lay it either in the sun or under cover, where there is a free circulation of air.

Salt Pork given to Sows, says the N. E. Farmer, will prevent them from killing and eating their young offspring.

Influence of Clergymen in Promoting Agriculture.—It is respectfully suggested to the clergy, that it is in their power to contribute much to this great object, by exhorting upon private, as well as more solemn occasions, an earnest attention to those habits of economy and industry, which the board now ventures to recommend. These gentlemen, from their intimate connection with their parishioners, possess invaluable opportunities, not only to encourage them to overcome old prejudices, but to form a just estimate of the progress of the moral and physical improvements of which their interests are susceptible. It has frequently occurred, also, that the clergyman's garden has been the pattern, of which many districts have availed themselves to their advantage; and it is to be lamented that horticulture, and the improvement of

apiaries, rich sources of comfort and profit, are by a great portion of the farmers of the interior greatly neglected. The board hopes that these resources will be numbered amongst the principal objects that are to engage the attention of the county societies.—*Memoirs of Agriculture.*

One Effect of Steam.—The Liverpool and Manchester coaches have, we are told, driven fourteen horse coaches off the road. Each of the horse coaches employed twelve horses—there being three stages and a change of four horses each stage. The total horses employed by these coaches was, therefore, 168. Now each horse consumes on an average, in pasture, hay, and corn, annually, the produce of one and a half acres; the whole would thus consume the produce of 251 acres. Suppose, therefore, "every man had his acre," upon which to rear his family, which some politicians deem sufficient, the maintenance of 252 families is gained to the country by these steam-coaches. The average number of families is six, that is, four children, and father and mother. The subsistence of 1,512 individuals is thus attained.

To Destroy Garlic.—H. Hollingsworth, in the Transactions of the American Society, Philadelphia, gives the following directions for destroying garlic:—

In April 1758, having fixed on a field for my next fall crop, which had produced Indian corn the year before, and was equally full of garlic with that I mentioned before, I sowed part of it with oats, the other part I fallowed in June, and stirred in August, at which time I ploughed in the oat stubble, as before, and sowed the whole in September, causing the same ridge to pass through part of the stubble and part of the fallowed land. In April 1759, there was a very perceivable difference. The stubble part was green with wheat, but the fallowed part was of a bluish color, occasioned by the quantity of garlic, and at harvest was full of large heads, while in the stubble part there was not one to be found.

Since that I have continued to sow oats in the garlicky lands designed for wheat, and find I have succeeded so well in destroying the garlic, that after three years culture in that way, the lands may be fallowed and sown with wheat in the usual manner, without any danger from that noxious plant.

Climate and Productions of California.—Upper Mexico, or New California, lies, as it is at present defined, between 32 and 42 degrees north latitude. The eastern limits I cannot accurately describe. It is calculated that the country contains 376,000 square miles. It is a pleasant and fruitful country, enjoying the most salubrious climate, and producing the necessaries and many of the luxuries of life. At Monterry, I ate excellent pears of the second growth, the first fruit being ripe in March or April. The vine and olive may be successfully cultivated, also most of the tropical fruits. The hills are covered with horses and cattle, by means of which most of their commerce with foreign vessels is carried on. There is a deficiency of water, and this season the country is afflicted with a severe drought. Yet, from what I have seen and heard, I am persuaded that this might be made an exceedingly delightful country.—*Rev. J. S. Green.*

Amount of fuel consumed in New-York in 1830.—A report of the City Inspector, giving a statement of the quantity, average price, and amount of firewood, anthracite and Virginia coal, charcoal and grain, weighed, measured, and inspected, in the city and county of New-York, during the last year, has been prepared and published by the direction of the Common Council, and a copy of it is before us. It appears from this, that of oak wood there was brought to this market 205,079 loads, at the average price of $1 63 per load, amounting to $334,428 46; of nut wood, 40,244 loads, at $2 28-3 average price, amounting to $81,892 90; and of pine wood, 52,283 loads, at an average price of $1 27.6, amounting to $66,764 50, making the total amount for wood fuel, inspected during the last year, $493,085 86.

Of Anthracite coal, 23,605 1-2 tons, at an average price of $8 47 1-2 per ton, were inspected, amounting to $200,069 78; of Virginia coal, 11,895 chaldrons, at $6 43 1-2, amounting to $76,457 39; and of charcoal, 12,593, at $3,58 4, amounting to 45,114.68. This gives, as the total cost of fuel for 1830, $814,817 66.

The quantity of grain measured in New-York is as follows:—900,442 bushels of wheat, at an average price of $1,02.9; 428,020 of rye, at $0,65.6; corn, 1,100,079, at an average rate of 52 cents 4 mills, making the total $576,446 6; 798,134 of oats, at $0,35.1; and 124,663 of barley, at $0,64.9. The total amount for grain, during 1830, is, therefore, $2,146,214.—*Ev. Post.*

Education.—The want of suitable school-books, and uniformity in their use, and of competent teachers, seem to be the evils under which the system continues to labor. For the mere purpose of reading and arithmetic, selections may be made, among the various books extant, of such as are perfectly adapted to the purpose. But I feel confident that, under proper regulations, a vast amount of knowledge in the arts and sciences, connected with agriculture and handicraft, which are simple in their principles, and easily comprehended, might be taught to children in those years which are usually spent at common schools. For this purpose, suitable books should be provided, and such teachers only, as are competent to instruct from them, should be employed. I am happy to perceive that gentlemen abundantly competent to throw light upon this subject, are moving to consult each other, and to devise remedies for the existing evils.

The public attention seems to be awakened to the subject of education in all the departments of knowledge, from that which simply makes the possessor familiar with his duties as a citizen, up to those which enable him to draw from the arcana of nature her treasures, or to contend in full panoply where honors are to be won for himself and his country, in the lists of literary emulation. While knowledge, by its intimate connexion with the harmonious action and durability of our political institutions, has secured for its advancement the efforts of individual enterprise, it will undoubtedly receive from you due attention and patronage.—*Gov. Throop's Message.*

On the existence of Animalculæ in Snow.—The following account was sent by Dr. J. E. Mure, in a letter to Dr. Silliman:—"When the winter had made a considerable progress without much frost, there happened a heavy fall of snow. Apprehending that I might not have an opportunity of filling my house with ice, I threw in snow, perhaps enough to half fill it.

There was afterwards severely cold weather, and I filled the remainder with ice. About August the waste and consumption of the ice brought us down to the snow, when it was discovered that a glass of water, which was cooled with it, contained hundreds of animalcules. I then examined another glass of water, out of the same pitcher, and with the aid of a microscope, before the snow was put into it, found it perfectly clear and pure: the snow was then thrown into it, and on solution the water exhibited the same phenomenon; hundreds of animalcules visible to the naked eye, with acute attention, and, when viewed through the microscope, resembling most diminutive shrimps, and, wholly unlike the eels discovered in the acetous acid, were seen in the full enjoyment of animated nature.

I caused holes to be dug in several parts of the mass of snow in the ice-house, and to the centre of it, and in the most unequivocal and repeated experiments had similar results; so that my family did not again venture to introduce the snow-ice into the water they drank, which had been a favorite method, but used it as an external refrigerant for the pitcher.

These little animals may class with *amphibia* which have cold blood, and are generally capable, in a low temperature, of a torpid state of existence. Hence their icy immersion did no violence to their constitution, and the possibility of their revival by heat is well sustained by analogy; but their *generation*, their *parentage*, and their *extraordinary transmigration*, are to me subjects of profound astonishment."

American Wine.---To your inquiry, whether wines may be made as good in this as in any foreign country, I answer, that grapes grown in the Southern States, from the great duration of the summer, may mature to the greatest perfection, and from sound, well-ripened grapes, good wine can only be expected. The making of good wine requires practical experience, and, after a few experiments, I am well persuaded, good wine may be manufactured. It is too common with us, and too much to be regretted, that as soon as wines are made they are brought into market, which operates greatly against the reputation of our domestic wines. Wine ought to be kept in the cellar at least four years before it is offered for sale, and will, within that time, if properly attended to, change every year for the better, if it has sufficient body. New wines are unfit for use, until they become mellowed by age.---*A. Geiger, in the Southern Agriculturist.*

Ducklings.---They are thirty-one days in hatching, whether the duck be entrusted with the care of hatching her own eggs, or whether it be left to the hen or to the turkey-hen. It is possible to rear a great many, and at a small expense, because they run and find a part of their food almost as soon as they are out of the shell.

Ducklings can do without their mother as soon as they are born. Their food, in the first days, is crumbled bread, sopped in milk, and a little wine, or cider. Some days after, a paste is made for them with a bunch of nettle-leaves, tender, boiled, chopped up very small, and of a third of the flour of Indian wheat, buckwheat, or barley: stale eggs may be added, being boiled first.

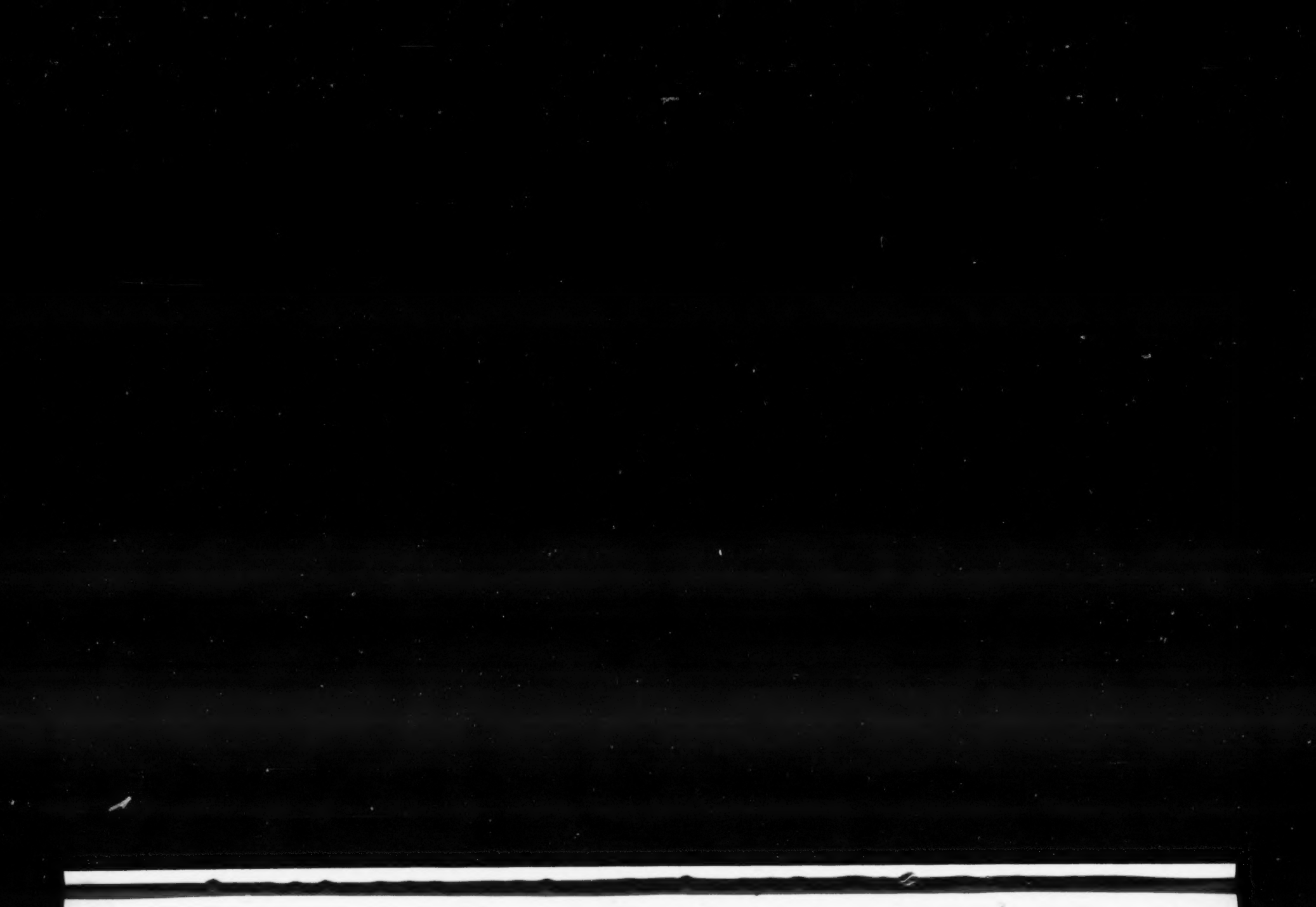
As soon as they have a little strength, a good deal of pot herbs are given them, raw and chopped up, mixed with a little bran soaked in water, barley, mashed acorns, boiled potatoes beat into pieces; little fish, when they are to be had, equally agree with these birds, who fall foul of the different substances that they meet with, and show from their most tender age, a voracity which they keep all their lives.---*Foreign Pub.*

Food for Ducks.---They may be left to themselves a part of the year. They live on grain strewed about the poultry-yard: with these birds nothing is lost; the siftings and sweepings of barns, mealy substances, fermented in the shape of bread, the residue of breweries and boiling-houses, herbage, vegetable roots, fruits, every thing suits them, provided what is given them be rather moist; it even happens, that where water is at hand, that they take and dip their aliments in themselves. They, therefore, are particularly fond of the boiled potatoe; and it has been substituted in some parts with profit, to maize and barley. It is on account of this disposition for moisture, that they are fond of being in meadows and pasture ground, which might easily be covered with those sorts of plants which ducks are most fond of.

But it appears that every thing approaching to flesh or offal is much to their liking, and forwards their growth admirably well. The large, fine species, answers so well in the environs of Rouen, on the banks of the Seine, only on account of its being in the power of the keepers to feed them with earth-worms, taken in the meadows, and which are portioned out to them three times a day, under the roofs where they are cooped up separately; this is what makes those early ducklings so large, fat, and white, that are seen in the markets in the month of June.

Ducks are so greedy, that they often set about swallowing a whole fish, or frog, which heats them extremely, if they do not immediately throw it up. Particularly fond of meat, they eat it with avidity, even when it is tainted. Slugs, spiders, toads, garbage, insects, all these substances, in a word, suit their ravenous appetite. They, therefore, are, of all the birds in the poultry-yard, those that could do the greatest services in the garden, by destroying a quantity of insects, which usually do irreparable damage, did not their voraciousness make one liable to other inconveniencies, which must balance this advantage, and make one give it up.---*Ib.*

New-York Cattle Market, Monday, March 21.---At market this day, 450 head of Beef Cattle, and about 100 Sheep. The demand for Beef has not been so good as heretofore, but the price nearly the same as last week; the 1st quality brought from $7,50*a*8; good $6¾*a*7, and fair $6*a*6½ per cwt. Sheep, 1st qual. sold for $6½*a*7; good, $5½*a*6; fair, 4½*a*5. We also noticed one small lot of wethers, without the fleece, to be taken at $4 each; also one lot of beautiful Sheep from Philad. at 12½cts. per lb. the quarters weighing from 130 to 150 lbs. Milch Cows, the market is full and sales dull at from $25*a*30 and $35 each; the first quality will bring $40. Veal, that which is good is worth from 5½ *a* 6 cts. per lb. alive. Swine, none in market. Oats, 40*a*43 cts. per bu. Hay, 68*a*75 cts. per cwt.---*Reported for the Journal of Commerce.*



[For the New-York Farmer.]

ART. LXVI.—*Mode of manufacturing Maple Sugar in the Western Part of the State of New-York.*

This is the season for sugar making, among our western farmers. The smoke from the camps may be seen emerging from among the lofty maples in almost every direction.

By the lovers of warm sugar, sap coffee, and sweetened *jony-cake*, this is a season that is hailed with joy—the liberal occupants make their camps a free resort for those who choose to visit them, and partake of the luxuries of the forest in their true native stile.

It is cheering to the spirits, after being housed up through a long tedious winter, to seat ones self before a huge log fire in the midst of the forest, fanned by the gentle breezes of Spring, broken by the wide spreading boughs of the Maple, and rendered mild by the radiated heat of the ignited pile of logs, surrounded by a group of light hearted lads and *lasses*, with each a clean chip and wooden spoon, feasting upon new sugar smoking-hot from the kettle—while the joke and song push around in high glee and good humor.

Many of our spirited farmers have arrived at quite a degree of perfection in the manufacture of maple sugar, and have taken much pains to clear from among their trees the under brush & old logs, to fence securly against the encroachment of cattle, hogs &c. and to supply themselves with snug tubs for catching and storing the sap, to have their kettles set in an arch under a temporary shelter, *sufficient* to protect them fromthe weather.

Within a few miles of me there are several orchards that produce from a thousand to fifteen hundred pounds of sugar every season, and of quality not inferior to the best Muscovado, and for all culinary purposes I think it surpassed by none in point of purity and flavor, and much of that made in the fore part of the season is nearly as colorless as the common lump. By our best sugar makers I am told that the only rules for making light colored and good sugar, that they are at all governed by more than others, are perfect cleanliness and care—their sap is all strained through a thick close strainer into the store tubs, and as it is wanted for boiling it is again strained into another that is raised to a level with the top of the kettles, and from which it is drawn by a tap as wanted, or allowed to run slowly into them as fast as it is evaporated—after proceding for some time in this way, the supply of sap is allowed to boil down to a thin syrup. It is then taken out and placed in shallow troughs to cool and settle, after which it is again strained into another kettle for boiling down to sugar (or sugaring off as it is termed.) The only substance made use of for cleansing is a little cold sap thrown into the syrup as it commences boiling, which causes what extraneous matter still remains to collect upon the top, and is readily skimmed off: it is then suffered to remain over a slow fire until it is in a proper state for drawing or caking.

The sugar made in this way gives no color to tea, has a fine flavor, and may be kept any length of time in any situation without injury.

There are many however, who have small orchards that pursue the old method of suspending their kettles from a pole resting upon two crotches, over a fire in the open air—collect and boil their sap without straining, &c. In this careless and hurried manner of pursuing the business they will unavoidably accumulate a considerable quantity of dirty foreign substances in the kettles before it is reduced to syrup—such as leaves, sticks, ashes, and the like containing more or less coloring matter, which is extracted by the boiling, and imbibed by the sugar, rendering it of a dark color and not unfrequently of a bad flavor. This colouring matter it imparts to whatever it is combined with, when used for culinary purposes. The common practice of using milk, white of eggs and many other *like* substances for cleansing is condemned by some who have had much experience in the business They say that the sugar imbibes some of the properties of these substances which causes it to become rancid after having been kept for some time. I have no doubt of this being a fact, as it is generally allowed that maple sugar is not as good after it has obtained some age, as when new, and I have frequently seen it at nine or twelve months old, that was hardly fit for any use, which at first was fine sugar. I now have some that was made a year ago in the manner first mentioned, which is perfectly free from any bad or rancid taste.

I have spun this article to a much greater length than I at first intended and it may be supposed to merit—my apology is that I am a great lover of Maple Sugar.

W.

Middlesex N. Y. 20th March 1831.

Remarks by the Editor.—We wish our correspondent had given some statistical information, in relation to the quantity manufactured in at least his own county. The 'rules observed more than others' are simple but important. Mr. Spafford, in his Gazetteer of New-York, Edition, 1824, speaking of Westford, Otsego County, says the farmers "make from 100 to 400 lbs. each of maple sugar, some of them, 700 to 800 a year; and a resident correspondent says there is not a single hogshead of imported sugar consumed in this town in a year." Again in speaking of Turin, Lewis County, he says, "the best maple sugar I ever saw, was made in this town; perfectly white, like the best loaf sugar, well grained, and as lively as Muscovado. Anxious to present directions for making it to my readers, I have taken a good deal of pains to gain the information, but without success. A sample of the sugar now lies before me, and I will give a copy of this Work to the person who will give me such *directions for manufacturing it*, that my readers can learn how to make as good. The slovenly practice in common use, in the manufacture of this article, is a sin against the bounty of a beneficent Creator." To this we will add, that we will give the present and the two succeeding volumes of the New-York Farmer, to the person who will, before August next, give us an article containing the necessary directions for manufacturing it in the best manner; a careful estimate of the quantity made the last year in this State, the policy or economy of manufacturing it at the present price of New-Orleans and foreign sugar, and on the supposition that the present duty of three cents on foreign sugar should be reduced to one and a half cents. In estimating the expenses, the effects on the growth and duration of the trees, and the requisite capital must be mentioned. We would wish the writer to give some good reasons why it has not heretofore been manufactured more extensively, and what prospect there is of its ever becoming an article of more relative consequence in the productions of this State.

[For the New-York Farmer.]

ART. LXVII.—*Mangel Wurtzel, and Ruta Baga.*

The committee of the Massachusetts Agricultural Society for 1830, awarded the premium of $20 for Mangel Wurtzel, to Mr. Gideon Foster, of Charlestown. By measurement Mr. F. had 1413 bushels to the acre; and by weight, allowing 56 lbs. to the bushel, he had 1512 bushels, or 86,455 lbs., upwards of forty-three tons. When it is taken into consideration that our stock is fed on preserved fodder for about six months in the year, the importance of such a crop as food for cattle, cannot be too highly estimated by the farmer. I agree with you, Mr. Editor, that many farmers, by no means follow sound sense, nor regard the voice of nature, when they confine their stock throughout almost the whole winter on dry hard fodder. In almost every part of Long Island, I have known farmers to feed out to their milch cows, winter after winter, nothing but salt hay and bottom cornstalks; and in the summer, to confine them to pasture without a single particle of salt during the whole grazing season. Such treatment can not be otherwise than prejudicial to the health and the developement of the desirable properties of a milch cow. The practice of giving succulent food to cows and sheep is more common now than a few years past. The attention of agriculturists in most parts of the Island, is confined to potatoes and turnips. It is the impression among us, that mangel wurtzel, sugar beets, parsnips and carrots require more labor, and are attended with greater expense than potatoes, turnips, corn, and English hay. But the above committee say that "no climate is better adapted than ours, for mangel wurtzel, sugar beets, (the most nutritious of the two, and equally productive,) ruta baga, common turnips, carrots, parsnips and potatoes—and of all these, cattle are very fond, and most if not all of them, form the most wholesome food of sheep and swine." "We have generally, it is believed, had the idea that much more labor and skill are necessary in cultivating mangel wurtzel, sugar beets, and ruta baga, than for corn and potatoes. This notion is natural enough, because we have attended to their culture much more than the former. But we have, in this report, as we had in the report of the last year, the testimony of a practical and nice observer, the Rev. Mr. Colman, who, in speaking this year of the ruta baga, says;—'the whole from the sowing to the gathering, was not *two thirds* of the labor usually bestowed in planting, cultivating, and gathering an acre of potatoes."

Mr. Foster's ground was manured with about eight cords of compost manure, and ploughed in eight inches deep. The seed was sown about the 12th of May, in rows twenty two inches apart. The soil was kept mellow and free from weeds. It is now the season for farmers to make preparations for the next winter's provision for their live stock. Let every Long Island farmer have a good supply of succulent food—and let this be judiciously given out in connexion with his salt hay, cut straw, and corn-stalks. This done, an increased quantity of milk, and an improved appearance in milch cows, will be the consequence.

By the same report, I perceive the Rev. Henry Colman obtained the premium of $20 for his fine crop of ruta baga. Allowing 56 lbs. to the bushel, he had 903 bushels to the acre. On the supposition that the whole expense of this crop was not greater than would be the culture of an acre of wheat, the advantages are easily perceived. Ruta baga usually sell in New-York, from 19 to 44 cents the bushel. Allowing 20 cents, the above crop would amount to $180 60. The land on Long Island does not generally produce over 25 bushels per acre—amounting at $1 20 to $30 00. The land on this Island, well manured, and the crop well tilled, will yield equal to that of Massachusetts. I am fully of the opinion, that the farmers on the greater part of this Island do not pay sufficient attention to the cultivation of succulent crops as food for their stock, and with a view of supplying the New-York market.

E. L.

Oyster Bay, April 6, 1831.

[For the following article we are indebted to the Annals of Education, a monthly periodical published at Boston. *Every teacher* and *every parent* who wishes to have enlightend views on Education, should become a subscriber.—*Ed.*]

ART. LXVIII.—SKETCHES OF HOPWYL. *Influence of Physical Education on the Mind and Character.*

MY DEAR FRIEND—There is scarcely any point in which the system of Fellenberg excited stronger interest in my own mind than in the connexion of physical education with intellectual and moral improvement. It is universally admitted, that the mind can never be capable of exerting all its energy unless the body is in a state of health. We have no necessity to recur to those numerous distressing forms of disease, produced by the neglect of health, which entail upon their subject an imbecility or perversion of the mental powers. It is frequently found that a defect which appears to be simply intellectual or moral, is connected with a morbid or imperfect state of the body, or a want of harmony between the various portions of the system; and that cheerfulness may even depend on a slight variation of food.

In acting on this principle, the experience of Fellenberg has satisfied him, that indolence in young persons, is so directly opposite to their natural disposition to activity, that, unless it is the consequence of bad education, it is almost invariably connected with some physical defect. He has often found it yield to the invigorating effects of the cold bath, or exercise in the open air; or, when it is the result of a preponderance of the animal system, it has been relieved by interposing an unusual proportion of exercise between the hours of study, and thus rousing the body from that torpor which benumbed the faculties of the mind.

The habit of wandering from one subject to another, which so often gives rise to useless remonstrances, and still more useless punishments, is frequently connected with debility or disorder of the nervous system, arising from natural constitution, from rapid growth, or from previous excessive exertion. It can only be remedied gradually, by careful attention to the degree and methods of occupation, and to the means just mentioned; and I witnessed more than one instance of obvious improvement, from the adoption of this course.

Impatience and irritability of temper are often the result of the same causes, and require to be treated in the same manner. Indeed, Fellenberg has often found

that Medical treatment was necessary; and that in many cases, the life, or health, or moral character of the pupil, would be irreparably injured by attempting to force him by punishment, or excite him by motives addressed to his vanity or ambition, to exertions to which his strength is not equal. Who that has long attended to this subject, has not seen more than one example in which the peace or vigor of a youth has been thus sacrificed to the unreasonable demands of parents, or to the ambition or severity of teachers?

The exercises connected with the physical education of Hofwyl, tend to form and improve the character in a variety of respects. They lead the idle to habits of occupation and industry, by the attraction of an employment adapted to their taste. *They cultivate the habit of perseverance* in accomplishing what they have begun, whether it be in acquiring a particular exercise of body, in making an article of furniture or ornament, or in the cultivation of their garden spots; obliging them to exercise the patience necessary to wait for the result. *They inspire with courage and enterprise*, by teaching the pupil how often his fears and discouragements are groundless, and how much may be accomplished by effort and attention. They invigorate his resolution in subduing himself and struggling with difficulties, and in producing that force of will, for want of which so many men of the best principles and intentions fall a sacrifice to the temptations around them, and even to the persuasion of others.—At the same time, they furnish him with a lesson of caution, and prudence, by the habit they produce, of *considering the object to be accomplished, of measuring his own strength and of devising the best means of bringing it into action.*

The care of their little garden spots, in the autumn and spring, furnish also useful lessons of foresight and calculation. It is interesting to see them in the autumn, collecting and placing in a green house, provided for that purpose, such plants as cannot sustain the cold—putting their hot-beds and other ornaments which might be injured by the weather under shelter—and heaping up the earth in such a manner that it may be penetrated and mellowed, by the snows of winter and the influence of the air.

It is peculiarly interesting to see them preparing and arranging their gardening tools, as the spring approaches; and, when its first mild days begin to cheer the earth, issuing forth to break up the ground—to bring fresh and fertile soil and manure, to replace what they have removed—and to make preparation for the summer; to see the fondness with which they afterwards watch over the progress of the fruits of their labours, and gather the little delicacies which have a double relish from this cause, and devise new plans for improvement and ornament; and especially, to witness the eagerness with which each party, on their return from their annual journey, run to visit their little estates, and enjoy the refreshments they afford.

Their annual journies serve not only to inure their bodies to hardship, but to accustom them to self-denial. They give them the experience of the vicissitudes of life and present some of its shadows, of such a depth as is suited to prove the courage, and call forth the energies of youth, without oppressing them. They form, in short, a kind of preparation adapted to their strength, for the real evils and privations of life.

They also serve to enlarge their views of mankind, in their individual character, and in their social relations. They are made familiar with the modes of life, of the various classes of the community; and collected the materials for those comparisons which are so necessary to enable us to appreciate duly our own situation and circumstances.

One subject, continually kept in view, is to enable them to acquire the mechanical habit of all those *exterior forms* which are necessary in life. These depend much more on habit, than on the intellectual and moral character; and yet are important to usefulness. On this subject Fellenberg observes, 'They should especially be accustomed to maintain the cleanliness so indispensable to health. An unpretending decency of dress and deportment, should be rendered as familiar to them as their breath. They should never be left to experience embarrassment of feeling for want of them, as it often happens to men of great merit and learning, when they are suddenly called upon to comply with forms to which they were not early habituated. It is lamentable that many good men have the weakness rather to make pretensions to Cynicism, as if it were an inseparable companion of great minds, because here and there an individual of this character has not given himself the trouble to throw off the disagreeable garb which conceals his merit.'

[For the New-York Farmer.]

ART. LXIX.—*Dialogue between the Visiters of a Farm and the Farmer.* By AMOS EATON, Prof. of the Rensselaer School.

I was employed by the Hon. Stephen Van Rensselaer (several years ago,) to examine his manor of the counties of Albany and Rensselaer, in connexion with two gentlemen of Albany. The following dialogue, *in substance*, frequently occurred.

Examiners.—You have an excellent farm for grain, and you have several sons; why do you not plant and sow more of your fields?

Farmer.—Why John has gone to be a merchant's clerk—he thinks he can make money by trade.

Farmers' wife.—John always was a scheming boy, and he cyphers well. I have no fear but John will do well enough.

Examiners.—But you have other sons.

Farmer.—Yes, but I think Ned really has a talent for *doctering*, so I let him go to study for a doctor; and as to Sam, he was always a curious *arguefyer*; and it would be injustice to our republic, Esq. Politus says, to deprive it of his talents. So I let him go to learn to be a lawyer.

Examiners.—Though your fields are overrun with weeds and bushes, immense quantities of unfed grass finds its way among these, its enemies. Why not keep twenty or thirty cows for a dairy, as you have several fine healthy daughters?

Farmer.—Why my girls are not lazy, but fashion will not allow a girl that works, any credit among folks. They do sew and paint a little, and go to school in the city to learn to play on the *Pyanner*, I believe they call it. One of my girls can do *algeber* and *flossifer* and such things. She can talk about *Yuclid*, and *Steward*, and *Jommeter*, as well as the most *larnt* of you. She says that girls come to school in Troy and Albany to learn these things, whose fathers are not worth half

as much as I am. So I have sent my two other girls this summer. My wife is getting to be old, and my fourth girl is but twelve years old, and she must go to the city in a year or two. She begins "to feel her oats," as we farmers say, and will do little but sew and knit. Six cows are as many as the old woman can tend alone, and cook for the rest.

Examiners.—Why do you not hire men and girls, if your children are not willing to work?

Farmer.—We can hire nothing now-a-days, but Irishmen. They are very industrious, and willing to work; but an Irishman or Irish woman must work one year to learn our Yankee way of raising grain or making dairy. And by that time, they begin to be like Yankees, and think they are above work.

Examiners.—How can you support the expenses of your sons with doctors and lawyers, and your daughters at school, if you raise but little grain, and keep a small dairy, and pay your rent to the Patroon?

Farmer.—I have mortgaged my farm for two thousand dollars. This will educate my whole family.—The law business, the doctoring business, and (above all,) the trading business, will soon fetch back the two thousand dollars. As for rent, the Patroon will take any excuse a few years, until my sons can pay all off.

Examiners.—The professions of Merchandize, Law, and Medicine, are now full to overflowing. They are becoming beggarly professions.

Farmer.—I know that is true in common cases; but my sons are your real Hamiltons, Van Vechtens, Van Burens, Rushes, Gerards, Grays, and the like. So says Esq. Politus, and he knows as much as any body about these matters.

Mr. Editor, in the preceding statement, which has thousands of literal applications in our country, we find a ready answer to the question, why is our country so distressed, while every kind of agricultural produce demands such an enormous price? The answer in quaint language is, "there is a dearth of laborers for making provisions; and a great price is of no use, if we have nothing to sell."

A. Eaton.

Troy, April 4, 1831.

[The following article, copied from the New England Farmer, affords an instance of the usefulness of Horticultural Societies.—*Ed.*]

Art. LXX.—*An account of the proceedings of the Massachusetts Horticultural Society, at a meeting held at the Hall of the Institution, on the 19th of March*, 1831.

Report made by A. S. Dearborn, President of the Society.

Since the last regular meeting of the Society, the diplomas have been completed, and transmitted to the Honorary, Corresponding and subscribing members. Communications have been made to the officers of the Horticultural Societies in the United States, England, Scotland and France, on subjects relating to rural economy, and for the purpose of obtaining intelligence in many of the departments of gardening, as well as specimens or seeds of such new, interesting and valuable varieties of fruits, and plants as may be successfully cultivated in this climate.

Several additions have been made to the library, and among them is the New Du Hamel,—a magnificent work in 76 folio Livraisons, containing superb colored plates, of all the varieties of fruits, cultivated in France.

Among the numerous letters which have been received are the following, which merit the special attention of the Society.

1. A letter from S. P. Hildreth, Esq. of Ohio, accompanied by a package of seeds and drawings.

Marietta, Ohio, 28th Feb. 1831.

To Gen. H. A. S. Dearborn,
President of the Mass. Hor. Society.

My dear Sir.—I have the satisfaction of announcing to you, that I have this day completed the packing of a box of seeds, cuttings, &c., and forward the same to the care of Messrs. Landreths, No. 85 Chesnut-street, Philadelphia. The box contains 50 small packages of seeds, mostly of our native ornamental forest trees, shrubs, creepers, and annual and perennial flowering plants—cuttings of thirteen new varieties of seedling apples, collected from the orchards in this country, one seedling pear, four seedling peaches, and native plum, grape, gooseberry, and crab apple; cuttings from the large native plum at Granville, Ohio, I could not obtain in season, but have sent some of the stones of the fruit, which will doubtless produce the same; also stones from twelve of our best varieties of peaches, some of them very fine. This climate is favorable to the growth of the peach, and seed from a milder region, would probably flourish better in New England, than grown in a climate rather too cold for the peach tree. Accompanying the cuttings, are drawings of ten of the apples, taken last autumn by Mr. Bosworth, who has succeeded in giving very perfect and accurate likenesses of the several kinds; also a piece, representing a basket of Ohio fruit, intended to decorate the hall of the Society, should they deem it worthy so distinguished a privilege. In the box is a catalogue of all the articles forwarded, with descriptions of the new varieties of apples. They are as yet without names excepting three or four kinds, which are noted in the list; the Society will therefore furnish them with such names as they may think most proper. I believe on cultivation, you will find all but two or three of the thirteen, deserving a place among your best fruits. That we should be able to furnish so many new and good varieties of the apple is not so surprising when it is considered that numerous orchards of the very best apples found in the middle and eastern states, were planted and engrafted from 30 to 40 years since; and that the seeds of these superior apples have been generally used in planting out nurseries from that day to this. The fruit in Washington County has for many years been noted for its superior excellence in New-Orleans and the towns on the Ohio and Mississippi rivers. Thousands of barrels are annually sent down the river by the farmers of this county, where they bring from two to four dollars a barrel. The winter with us has been one of unusual severity; but I do not discover as yet any injury done to the fruit buds by the cold The lowest temperature was five below zero, of Fahrenheit, the 22d December. It has been for several days in February at zero early in the morning; but we now have mild weather the rivers open for navigation, and the temperature on the 26th at 66° in the middle of the day.

Wishing you continued health, and renewed pleasure in your horticultural pursuits, when spring shall again revive the sleeping plants, I remain your friend,

S. P. Hildreth.

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2. A letter from Doct. David Hosack of New-York, with a donation of Books.

New-York, February 8, 1831.

Dear Sir—I had the honor of receiving the Diploma conferred by the Massachusetts Horticultural Society over which you preside.

I duly appreciate the favor, and will gladly do all in my power to merit the distinction it conveys. With the exception of the general principles of agriculture, the nature of soils, the operation of manure as connected with my early botanical pursuits, I am yet but a tyro in practical horticulture, to which I am now about to devote my attention. Should any thing offer in this new field of inquiry, that may appear worthy of communication to your Society, I shall not be unmindful of the duty which their kindness has imposed. I beg, too, to say that it will afford me the highest gratification to see you or any of the members of the Society at my residence at Hyde Park, on the Hudson, which I am now cultivating with the view to the great objects of our favorite pursuits.

By the earliest opportunity I will have the pleasure of forwarding to the Society a few volumes of which I beg their acceptance.

I am, dear sir, with sentiments of great respect, your humble servant, David Hosack.

H. A. S. Dearborn, Esq.
Pres. of the Mass. Hort. Society.

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3. A letter from John S. Skinner, Esq. of Baltimore, accompanied by a package of seeds, from Western America, with a letter from the adventurous J. S. Smith, Esq. of St. Louis, containing a description of the plants from which the seeds were obtained.

Baltimore Post Office, 21*st Feb.* 1831.

Sir—If I have been slow to acknowledge it, permit me to assure you that I am not the less proud of the honors you announced to me of my having been elected an Honorary Member of the Massachusetts Horticultural Society. But the pleasure of being thus associated, even by name, with gentlemen of science and efficient patriotism is accompanied by an unfeigned consciousness of my inability to make any adequate return to the Society.

The only contribution I have now to offer, consists of seeds of hitherto uncultivated plants, recently received from regions far West, which may afford valuable additions to the horticultural products of Massachusetts, if by careful efforts they can be gradually accommodated to your so much more northern climate. I leave to the better judgment of the Society to say how far the prospect of success may warrant the trouble of experiment; and only beg leave to add that whatever may be the value of the result, it is to Mr. Smith, who made the collection, and whose description accompanies this, that will be due the thanks of the Society; while a high appreciation of its objects, and a readiness to co-operate most cordially for their attainment in my humble way, are the only claims that can be offered for its consideration.

Your most obedient servant,

J. S. Skinner.

St. Louis, Missouri, 27*th Dec.* 1830.

Dear Sir.—During my travels of nine years in the country on the sources of the Missouri River and in the Territory of Mexico and the United States, west of the Rocky Mountains, and on the coast of the Pacific, I have at different times gathered the seeds of such shrubs and plants as appeared peculiar to that country. Some of these may claim consideration from their inherent qualities, and others may find a place in the gardens of the curious, from the fact that they are natives of the most distant and wild territory of our Republic. It may perhaps be a pleasure to a lady of the Atlantic to gather Cherries or Currants from a shrub whose parent stock is now growing by the bank of a stream that flows unmarked by the eye of civilized man to the calm Pacific. A few samples I inclose to you, in the hope that you will make such a disposition of them that I may in some future time see them blooming in the gardens of the Atlantic. The different parcels are numbered and of each I give a short description.

No. 1. Large black gooseberry, found on the head of the Platte, in wet ground, in the vicinity of springs that burst from the sides of the mountains; where the soil is rich they grow well in the shade. Ripen there about the first of September. Entirely smooth.

No. 2. The Seria Berry, gathered on an eastern spur of the Rocky Mountains, northern declivity and clay soil, ripe about the last of August. A fine fruit, the shrub about 5 or 6 feet high. Size of the Fox Grape.

No. 3. Choke Cherries of a superior kind; they are found in all parts of the mountains, in the rich soil of the valleys of creeks and rivers. The shrub is from four to seven feet high; in the middle of August when ripe, the berry is a most beautiful purple, and about the size of the Fox grape. Yield abundantly.

No. 4. The Yellow Currant, found on the sources of the Missouri and Platte, on the eastern declivity of the mountains, found in the vicinity of springs and rivers where the soil is good. The shrub larger than the common currant; ripe about the 15th of August; they are larger than any currant cultivated in the U. States. An acquisition to the housewife.

No. 5. The Black Currant, the fruit and shrub much like the Yellow, with the exception of the color; found in the Black hills.

No. 6. The Buffalo Berry, found in the Black hills in gravelly soil along the water courses. The berry when ripe, about the middle of August is a beautiful red. The shrub, about five or six feet high, is of that kind which is supposed would make a good hedge.

No. 7. The Scented Grass-seed. This grass is found on the West side of the Rocky Mountains, on the Columbia river. Grows in damp ground; should be cut before ripe, when it is peculiarly fragrant.

No. 8. Leaves of the Scented Wood. Grew on the western coast, south of the mouth of the Columbia. The tree has a resemblance to the apple tree, the largest about eighteen inches in diameter. They may perhaps be restored to their original fragrance. I am not certain that the wood is fragrant, but know bark and leaves to be so. The tree is an evergreen. I procured seeds, but lost them.

I must request that you would do me the favor to

acknowledge the receipt of the package, directed to this place.

If in my future journeys to the west, I could make any collections that would be interesting, I shall do it with great pleasure.

I am, Sir, your most obedient,

J. S. Smith.

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The following resolutions were adopted.

1. *Resolved*, That the thanks of the Society be presented to Dr. David Hosack for his valuable donation of books.

2. *Resolved*, That the thanks of the Society be presented to John S. Skinner, Esq. of Baltimore, for the very acceptable present of seeds, obtained in the regions near the sources of the Missouri, and west of the Rocky Mountains.

3. *Resolved*, That the Secretary be directed to transmit copies of the foregoing resolutions to the gentlemen therein named.

As it is desirable that the rare varieties of foreign and native fruits should be speedily and extensively cultivated, it is suggested, that collections of the scions should be made, and placed in charge of the Executive Committee, for distribution, at some future meeting; and that notice be given, in the New England Farmer, of the kinds, and the time when they will be offered to the members of the Society.

It is deemed expedient that the Committee on fruits, vegetables and flowers, announce, in the New England Farmer, when the exhibitions of those products will commence, at the Hall of the Society Respectfully submitted by H. A. S. Dearborn,

Pres. Mass. Hort. Soc.

Boston, March 19, 1831.

[For the New-York Farmer.]

Art. LXXI.—Wilson's Ornithology. *The White breasted and Red bellied Nuthatch.*

A common fondness for *Poetry* had made Burns and Wilson acquainted; and by the following extract of a letter from the former, it apears that they had also a common fondness for *Birds:*—

"I had roved out as chance directed in the favourite haunts of my muse, on the banks of the Ayr, to view Nature in all the gaiety of the vernal year. The evening sun was flaming over the distant western hills; not a breath stirred the crimson opening flowers, or the verdant spreading leaf. It was a golden moment to the poetic heart. I listened to the feathered warblers, pouring their harmony on every hand, with a congenial kindred regard, and *frequently turned out of my path, lest I should disturb their little song, or frighten them to another station.*"

How different are those who shoot *swallows, blue birds* &c., for want of other imployment! Can such sympathize with Wilson in the following narrative? and can they show themselves to be more respectable than the superstitious savage of the South? In other words, is wantonness a better excuse for mischief than superstition.

"About half an hour before sunset, being within sight of the [Chicasaw] Indians where I intended to lodge, the evening being perfectly clear and calm, I laid the reins on my horse's neck, to listen to a mocking-bird, the first I had heard in the Western Country, which perched on the top of a dead tree before the door, was pouring out a torrent of melody. I think I never heard so excellent a performer. I had alighted and was fastening my horse, when hearing the report of a rifle immediately beside me, I looked up and saw the poor Mocking-bird fluttering to the ground. *One of the savages* had marked his elevation, and *barbarously* shot him. I hastened over into the yard, and walking up to him, told him that was bad! very bad! That this poor bird had come from a far distant country to sing to him, and that in return he had cruelly killed him. I told him the Great Spirit was offended at such cruelty, and that he would lose many a deer for doing so. The old indian (father in-law to the bird-killer) understanding by the negro interpreter what I said, replied that when these birds come singing and making a noise all day near the house, *somebody will surely die!*—which is exactly what an old supestitious German, in Virginia once told me."

The white breasted Nuthatch.

"This bird builds its nest early in April, in the hole of a tree; in a hollow rail in the fence; and sometimes in the wooden cornice under the eaves. The male is extremly attentive to the female while sitting, supplying her regularly with sustenance, stopping frequently at the mouth of the hole, calling and offering her what he has brought, in the most endearing manner.

"Sometimes he seems to stop merely to enquire how she is, and to lighten the tedious moments with his soothing chatter. He seldom rambles far from the spot, and when danger appears, regardless of his own safety, he flies instantly to alarm her. When both are feeding on the trunk of the same tree, or of adjoining ones, he is perpetually calling on her; and from the momentary pause he makes, it is plain that he feels pleased to hear her reply."

"The white breasted Nuthatch is common almost every where in the woods of North America; and may be known at a distance by the notes *quank, quank*, frequently repeated, as he moves up and down, in spiral circles around the body, and larger branches of the tree, probing behind the thin scaly bark of the white oak, and shelling off considerable pieces of it in search after *spiders, ants, insects and their larvæ*. He rests and roosts with his head downwards; and appears to posess a degree of curiosity, not common to many birds; frequently decending very silently, within a few feet of the root of the tree where you happen to stand, stopping, head downward, stretching out his neck in a horizontal position, as if to reconnoitre your appearance; after several minutes of silent observation, wheeling round, he again mounts with fresh activity, piping his unisons as before."

"From the great numbers I have opened at all seasons of the year, I have every reason to believe that *ants*, small seeds, *insects and their larvæ*, form their chief subsistence, such matters alone being uniformly found in their stomachs."

The red bellied Nuthatch

"Is particularly fond of the seeds of pine trees.—You may traverse many thousand acres of oak, hickory and chestnut woods, during winter, without meeting with a single individual; but no sooner do you enter among the pines, than if the air be still, you have only to listen for a few moments, and their note will direct

you where to find them. They usually feed in pairs, climbing about in all directions generally ☞ accompaned by *the white breasted nuthatch*, as well as by *the black capt titmouse*, and *the crested titmouse*, and not unfrequently by *the small spotted wood-pecker;* the whole company! proceeding regularly from tree to tree, through the woods like a corps of pioneers; while in a calm day the rattling of their bills, and the rapid motions of their bodies, thrown like so many tumblers and rope-dancers into numberless positions, together with the peculiar chatter of each, are altogether very amusing; conveying the idea of hungry diligence, bustle and activity. *Both these little birds, from the great quantity of destructive insects and larvæ they destroy, both under the bark, and among the tender buds of our fruit and forest trees, are entitled to, and truly deserving of our esteem and protection.*" D. T.

Wilson's ornith. vol. 2.

[At the request of Mr. Wilson, (page 18,) we insert, Mr. Bonsall's letter. He gives an opinion decidedly favorable to the native grape for wine; and speaks of the acclimation of the foreign vine, as being hopeless. Whereas, some of our most experienced horticulturists laugh at the idea of making good wine from the native grape, which they say is deficient in saccharine matter. The experiments now making will soon put the question to rest.—*Ed.*]

ART. LXXII.—*Cultivation of the Vine.—Copy of a letter from* EDWARD H. BONSALL, Esq. to WM. R. PRINCE, dated, Vineyard, Germantown, Pa. February 1830.

"I may premise, that I commenced planting my vineyard in the spring of 1825, with from seven to eight thousand cuttings, which I extended over three thousand acres of ground, arranging them with a view to the vines being when grown, at distance of four by seven feet from each other. There was an average of two cuttings in a place. From the time of planting (say first of April,) for a period of six weeks, there was but about one-fourth of an inch of rain, and the sun frequently warm. The vegetating principle was put in action, the sprouts started, and deriving no nutriment from the soil, many of them were soon killed, and dropped off. I raised something beyond one thousand. The early and most important part of the next season was almost equally unfavourable, which combining with the necessity of starting with very few of some of the varieties, I was desirous of cultivating extensively, (and from which I have since been propagating, and gradually extending my stock,) greatly obstructed the completion of my establishment, so that there are yet some vacancies to be filled. I have now about three thousand five hundred in their proper places, and upwards of one thousand more to be renewed. I have such confidence in the business being both practicable and profitable, that I contemplate planting one and a half acres more on a site well suited to the purpose, adjoining my present establishment.

Some of my vines produced fruit in 1827, pretty freely in 1828, and last year very largely, when my vintage produced eight barrels of wine, beside my making sale of a considerable quantity of fruit in Philadelphia, &c. The ensuing season, I shall probably have more than double the quantity, as there are constantly new vines coming into bearing, and also others approaching their full capacity, which had previously made only a first or second effort.

As regards the varieties with which I have had most success, and to which I give the preference, I am unhesitating in ranking as the three foremost, the 'Catawba,' the York, (Pa.) 'Black Madeira,' and the 'Isabella.' These seem to possess all the requisites for our purpose, more particularly as *wine grapes*,—and some persons admire them for the table also. They all produce excellent wood, ripening the shoots almost to the extreme end, even in the most unfavorable seasons, and without any protection, pass through our coldest winters as securely as the oak of the forest. The 'Catawba' and 'Isabella' yield extra-abundant crops of fruit, and the York Black Madeira is also a very good bearer. Their fruit rarely fails to arrive at fine maturity, and is rich in saccharine matter,—the basis of wine. The 'Alexander' I am cultivating pretty largely, but my estimation of it is on the wane. It does not produce as good wood as those just mentioned, and is less certain of ripening its fruit. I have some plants of the North Carolina 'Scuppernong' coming forward; but from conversation with some of my friends, who were familiar with it at the south, I doubt its adaptation to extensive culture. They say, that as the berries commence ripening, they immediate loosen their connection with the stem, and by slight agitation, fall in great numbers, as is the case with most of our Fox grapes. I have upwards of thirty additional varieties, several of which have not produced fruit, so as to enable me from personal observation, to place an estimate on them; and such as have, I do not think worthy of being brought into competition with the three first mentioned. There are some, the 'Elsenborough,' 'Orwigsburg,' &c. the fruit of which is good, and generally ripens, but they hardly seem fitted for vineyard culture, on account of deficiency in the size of the fruit, amount of produce, &c.

The wine Dr. Hulings alluded to was part of a cask of one hundred and thirty gallons, made by me three years since, from the 'Alexander' grape, purchased of some of my neighbors, my vines not having at that time come into bearing. It has been pronounced by connoisseurs in Philadelphia, to be very similar in its character to a good Madeira, excepting that it was rather more mild.

My vineyard is situated between the Schuylkill and Delaware rivers—four miles from the former, and eight from the latter, at an elevation of three hundred feet above their level, having an aspect facing S. S. E., with a sub-stratum of light isinglass soil, and seems well suited to the purpose. From my experience, both on my own premises and at other places, it is my judgment that we should reject almost all the foreign varieties, especially where our object in cultivating them is to make wine.

I shall now proceed to make some statements on the subject of planting, training, &c. and as my experience, since commencing the business, has suggested some variations from my original plan, I shall rather detail what I *would do*, than what I *have done*. I think the plan laid down by most writers for preparing the ground and planting, is much more expensive than is necessary, and that it is calculated to deter many persons from undertaking the business. To dig

the ground from eighteen inches to two and a half feet deep with a spade, is in this country no trifling task, and in comparison with the common process of farming, looks truly formidable. My plan would be, to start two ploughs with strong teams, one immediately behind the other, *in the same furrow*, each of them *set deep*, and after the ploughing is completed, *harrow it thoroughly*. Then, in the direction the rows are intended to be planted, run parallel furrows across the field, at the distance of eight feet from each other. Afterwards cross these at right angles, five feet asunder. In the opening at the intersection of these furrows, plant the cuttings or vines. Of *cuttings*, if they are short-jointed, I think from nine to twelve inches in length is sufficient, observing that the upper eye or bud is firm and good. Then place them in the ground (at the intersections as above) such a depth that the *upper eye* is even with the general surface of the surrounding earth, and draw the earth to them till it is level, pressing it lightly with the foot. If the plough has not made an opening the full depth, the cutting can be forced down with the hand. In case rooted plants are to be set out, if they are not large, the opening at the intersection will be found to be nearly or quite sufficient to receive them, when the earth can be drawn in as before. In this way a large number can be planted in a short time, and at a trifling expense.

Contrary to the common opinion and practice, I think I have satisfactorily ascertained that *late spring planting* for *cuttings* is attended with more success than any other time. Last year I planted in nursery beds, from two to three thousand cuttings as late as from the middle of April to the middle of May, with better success than at any previous time. In this case, the slips should be kept in a cool damp place, a cellar or ice-house, where vegetation may be held in check. To ensure their freshness, sprinkle them occasionally with water. Previous to planting, cut them a proper length, and place them with their lower ends three or four inches in water, in a tub above ground, where they may soak three or four days. At this season, the temperature will be likely to be such as will spur vegetation at once into healthy and vigorous action. In the fall, or early in the spring is preferable for rooted plants. In the autumn of the first year, after the frost has killed the unripe part of the young shoots, they should be pruned down to the mature firm wood, and then with a hoe hilled over with the surrounding soil, which will completely protect them through the winter. If left without protection the first winter, many of them will perish.

My mode of *training*, as far as I am aware of it, is entirely peculiar to myself, and as regards *fitness* and *economy*, (taking the average of a given number of years) I think is superior to any thing I have met with. I take chesnut posts, the thickness of large fence rails, seven feet in length. These I plant along the rows, at distances of ten feet from each other, and at such a depth as to leave five feet above the surface of the earth. Then taking three nails to each post, and driving them to within half an inch of their heads—the first, two and a half feet from the ground, a second midway between that and the top, and the third near the top, I attach No. 11 iron wire, (one degree soft is best) firmly to one of the nails in the end post, pass on to the next, and stretching it straight and tight, give it one turn round a nail in the same line as the one to which it was first attached. Having in this manner extended it along the three courses, the whole length of the row, my trellis is formed. I have had a portion of my vineyard fitted up in this way for three years, and experience has confirmed the superior fitness of the plan. It is not its least recommendation, that it possesses in a degree the character of 'labor-saving machinery.' A very important and extensive *labor-making* portion of the operations in the vineyard during the summer, is the attention required by the growing shoots to keep them properly trained up. They grow and extend themselves so rapidly, that where the strips of the trellis are lath, or where poles are used to support the vines, unless very closely watched, they fall down in every direction, in a very unsightly and injurious manner. Here, the wire being small, the tendrils or claspers eagerly and firmly attach themselves to it, and thus *work for themselves*, in probably two thirds of the instances where the attention of the vigneron would otherwise be required. There is free access afforded to the sun and air, and no hold for the wind to strain the frame, &c. &c.

"I shall not enter into a minute description of my manner of pruning, but may just say, that after the vines have attained a full capacity for production (say five years from the cutting,) my view is to prepare them for bearing an average of fifty clusters to each, leaving several shoots of from three to five joints on a vine, for this purpose. When fresh pruned they will not be more than four feet high, at their greatest age.

Although I have succeeded in making good wine, and hope still to succeed, as that made last autumn, two hundred and forty gallons, in four separate casks, all promises exceedingly well. I do not consider that I have any settled practice, it being yet in some sort a matter of experiment. I therefore feel that it would be premature for me to treat on this branch of the subject. The important fact, and which is ascertained beyond dispute, is that we *can make good wine in this country*, I believe, equal to the better qualities of foreign. An interest in the business has already been awakened, and is rapidly extending itself through a large portion of our country, and practical instructions on the subject, accompanied by an exhibit of its proceeds, when actively and judiciously prosecuted, seem called for by the exigencies of the present time, and will no doubt, by prompting to the more widely extended culture of the vine, prove a public benefit at the same time that it greatly promotes the personal interests of those who engage in it.

ART. LXXIII.—*Systematic Alternations of Crops.*

In the cultivation of the ground, either in farming or gardening, a proper attention to the regular rotation of crops forms one of the first and principal features of good management, although its beneficial influence has not yet been fully accounted for by chemists. The rationale of rotation is thus given by Sir Humphry Davy:—"It is a great advantage in the convertable systems of cultivation, that the whole of the manure be employed; and that those parts of it, which are not fitted for one crop, remain as nourishment for another. Thus, if the turnip be the first in order of succession, this crop manured with recent dung immediately finds sufficient soluble matter for its nourishment, and the heat produced by fermentation assists the germination

of the seed, and the growth of the plant. If after turnips, barley with grass-seed be sown, then the land little exhausted by the turnip crop, affords the soluble parts of the decomposing manure to the grain. The grasses, rye-grass, and clover remain, which derive a small part only of their organized matter from the soil, and probably consume the gypsum in the manure, which would be useless to other crops; these plants, likewise, by their large system of leaves, absorb a considerable quantity of nourishment from the atmosphere, and when ploughed in, at the end of two years, the decay of their roots and leaves afford manure for the wheat crop; and at this period of the course, the woody fibre of the farm-yard manure, which contains the phosphate of lime, and the other difficult soluble parts, are broken down, and as soon as the most exhausting crop is taken, recent manure is again applied."

Gardeners should pay particular attention to rotation of crops, as far as the nature of the thing will admit of; a good practice is to sow down part of the garden every season in grass, clover, and barley, which may be used as green food for horses and cows. The barley should be sown with the clover, and cut down, not being allowed to ripen; thus it acts as a nurse and a shade to the clover. But in all cases where this is done let the ground be laid down in as good condition as possible, and the manure laid on will not be lost.—Land thus laid down should continue so for two years, or if for three, the greater will be the benefit. However, this is generally regulated by the quantity of ground which can be spared from crops, for the time when the ground is wanted. The crop of grass, if dug in, but not too deep, for reasons given already, will materially improve the soil; but on no occasion whatever trench it in, as is too often the case. This practice, although excellent, can however only be applied to gardens on a large extent; for its adoption would not be attended with the same advantage in the general run of our gardens.

By a rotation of the perennial crops, such as quartering out currants, gooseberries, and raspberries, &c. the ground will not only be renewed, but also rested, or at least very much improved. None of these crops need occupy the ground above twelve years, and not less than three; this, together with trenching for the principal crops of autumn-planted brassica will keep the ground in fresh order, and be attended with no loss of space; for in all large gardens, and the generality of small ones, new plantations of these things should be made to a certain extent annually, which will throw a certain proportion of ground into regular rotation. In cropping all gardens, as far as it can be rendered practicable, rotation should be aimed at, and thus, by keeping all the legumes, as peas and beans, the brassica or cabbage kinds, the bulbous or onion kinds, and lighter crops, as salads, &c. by themselves, each following in regular succession, the garden would not only look better, but would, to a certain degree, produce the rotation required. In no case should any of the brassica tribe follow another upon the same piece of ground, neither should peas follow peas, nor beans, beans; onions are, probably, the only exception in garden culture. A journal, or plan of the garden should be kept, and the ground divided into portions, each of which should be numbered and a careful record kept of all crops, manurings, trenchings, &c.

The necessity of rotation is pointed out to us by nature; for all perennial herbaceous plants have a tendency to extend their circumference, and to rot and decay at their centre, where others of a different kind, spring up and succeed them. This is particularly exemplified in the strawberry, and all such stoloniferous growing plants; mushrooms are said never to rise two successive years on the same spot. The production of the phenomenon, called fairy rings, has been ascribed to the power of the peculiar fungus, *(Agaricus orcades,)* which forms it, of exhausting the soil of the nutriment necessary for the growth of the species.—The consequence of which is, that the ring extends itself annually, as no seeds will grow where their parents grew before them; at the same time, that the interior of the circle has been exhausted by succeeding crops; but in those places, where the fungus has died, grass has grown luxuriantly, nourishment being thus left for the support of grass and other plants, after the agaricus has exhausted all that was destined by nature for it.

All crops for a few years thrive well on newly turned up virgin mould, but in a few years they degenerate, and require a fresh soil. Land, in the course of years, often ceases to produce the most common vegetables, and fields which are well laid down with cultivated grasses, lose every one of them in a few years; they become, as it were, tired of them, but the truth is, that they have exhausted the nourishment proper for their respective sorts, and consequently die, and give place to others. This fact is frequently experienced by botanists to their regret, for a plant is often found in abundance for years, in one field or wood, and in course of time wholly disappears.

A change of crops is founded on an acknowledged fact, that each sort of plant draws a nourishment peculiar to itself. On this principle, after a piece of ground has nourished one crop, another of a different description may succeed. Nothing can relieve the soil more than a rotation of crops judiciously arranged, according to which plants of different habits and constitutions succeed each other. To reduce this to practice, we will suppose a quarter of sea-kale or asparagus, the roots of which are large, and have penetrated to a considerable depth, and which have remained in the ground for several years; and further, that they have exhausted the soil, in which they grew, of those parts which constituted their principal food, and in consequence, that they have ceased to thrive; then instead of re-planting the same piece of ground with young plants of the same kinds, let them be entirely cleared away, and the ground dug, and cropped with peas, beans, or any of the leguminous kinds, whose roots do not penetrate to any great depth, and they will derive sufficient nourishment, either different to the former kind, or such as the root of the preceding crop was too deep to absorb. In like manner, let the new crop of sea-kale, or asparagus, succeed some crop of a light description, such as any of the common annual culinary vegetables. It is a rule from which only extraordinary circumstances can warrant a departure, never to plant a new set of perennial stock on the ground from which has just been removed a plantation of the same or a similar species, which has worn itself out. On the contrary, crops which strike deep should be succeeded by such as pierce but a little way into the ground; and crops which have occupied the ground for any length of time should be succeeded by such as are either biennial, or indeed annual.

From the general richness of garden-ground, and much manure being constantly employed in the raising

of garden-crops, much less attention has perhaps been paid to the courses of cropping in the garden, than in the field. It is, however, equally necessary in one case as in the other, and the same principles are applicable to both.

A variety of circumstances, however, conspire to prevent its being so effectually accomplished in the garden as in the farm; such as the smallness of the portions of ground generally alotted to this use; the vast number of articles which are to be grown, and their great similarity and relation to each other. The following classification may be considered the most proper:—

Broccoli, cabbage, cauliflower, and savoys;
Common beans, French beans, and peas;
Carrots, beets, and parsnips;
Turnips, early potatoes, onions, leeks, eschalots,&c.
Celery, endive, lettuce, &c. &c.;

It is found in practice that celery constitutes an excellent preparation for asparagus, onions, and cauliflowers.

Turnips or potatoes are a good preparation for cabbages or greens.

Broccoli or cabbages are a proper preparation for beans or peas.

Cauliflowers prepare well for onions, leeks, or turnips.

Old asparagus land affords a good preparation for potatoes or carrots.

The strawberry, currant, gooseberry, and raspberry, for the same.

Turnips give a suitable preparation for celery or endive; and peas, when well manured, are a good preparation for spinach, &c.

By properly attending to all these different points of management, crops of almost all descriptions may be put into the soil, so as to succeed with much greater certainty, and in a much more perfect manner, than is usual in the ordinary methods of putting them into the ground.—*English Practical Gardener.*

ART. LXXIV.—*Pedigree and weight of a pair of Devonshire Oxen, raised and fattened by* S. & L. HURLBUT, *of Winchester, Ct.*—To the Editor of the New-York Farmer.

Sir,—Having been occupied from my earliest years, in that rural and *primary* science of *general husbandry*—AGRICULTURE,—I assure you I feel much pleasure in handing to you, the annexed copy of a letter I received from S. & L. Hurlbut, Esqrs. of Winchester, Conn., in which they state the pedigrees and particulars of a pair of extraordinary fat and handsome Devonshire Oxen, which were *bred, worked*, and *fattened*, by those gentlemen on their Farm.

Winchester, Conn. March 12, 1831.

"*Sir*—The pair of fat Devonshire Oxen of ours, butchered in New-York last week, were sired by our full blood Devon Bull, *Holkham*, which we purchased of Mr. Patterson of Baltimore, when four months old, in the autumn of 1819; and is doubtless, one of the finest Bulls ever in America. He is from a Cow and Bull sent to Mr. Patterson by the Hon. Wm. Coke, of Norfolk England.

"The two Oxen were out of two Cows termed native breed, which breed originated from England, and were brought over by the first settlers of Connecticut, and were doubtless originally Devon, as they resemble that breed very much.

"The pair of Oxen have labored on the farm since they were one year old, until within 21 months. They were, when killed, 7 years and 10 months old. Below, you have their weights.

Yours respectfully,
S. & L. HURLBUT.

To Mr. Fisher.

Near side Ox,		*Off side Ox,*	
Quarters,	1438	Quarters,	1528
Tallow,	175	Tallow,	213
Hide,	117	Hide,	115
	1730 lbs.		1856 lbs.

Without doubt, Sir, Mr. Patterson will derive an additional pleasure from the above interesting statement, together with his much respected and intimate friend, Mr. Coke, of Holkham Hall in England, whom I have had the honor to be personally known, for many years; and to whom, I have the gratifying pleasure to add, that I have forwarded the *portraits* of the above named *superior animals.*

Many and great advantages to the community arise from such liberal-minded patriots, for such I am proud to add, is *the noble possessor* of *Holkham*, in disseminating *useful information*, and thus benefitting every *nation* and *quarter* of *the globe!*

Permit me to state, that the superior breed of Devonshire Cattle on Mr. Coke's domain and estates in England, have been increasing for many years, through his example and superior management.

The Devonshire breed possess many advantages, viz. their early *maturity*, and *aptitude* to *fatten*—beef of a superior quality, for the dairy *richness of milk*, and for the *yoke, plough*, or *draught* not *surpassed*—and *rarely* or *seldom equalled.*

I witnessed the docility and good training of the above pair of Oxen, and on handling them, I was agreeably surprised to meet with such *excellent stock* in the City of New-York.

I beg to remain, Sir, your obd't. servant,
JOHN FISHER.

New York, April 9, 1831.

[The following is from the American Farmer, by Mr. J. Barney of Philadelphia.]

Philadelphia, March 29, 1831.

MR. SMITH,—Permit me to make a few observations on the subject of Bakewell sheep, and Devonshire cattle; if you think them worthy a place in your useful paper for the benefit of the public, you are at liberty to publish them. It has been frequently requested of me, verbally and also by letter, from various parts of the United States, to give my candid opinion which is the best sheep and cattle for the American farmer to turn his attention to. I have for a number of years past given the preference to Devon cattle and Bakewell sheep, and I have turned my attention to them in preference to all others; and I still am convinced they are decidedly the best breed in the United States. I have information from a large proportion of the best judges which I have become ac-

quainted with, for the two last fall and winter seasons in the New-York cattle market, in which I have spent about four months in each of the two last years, in making sales of fat cattle and Bakewell sheep to a large amount. When I say best judges, I mean the grazier, drover, farmer and butcher; most of them have come to the conclusion with myself, that they are the breeds which practical men ought to turn their attention to. The New-York cattle market is supplied from most of the states in the Union; for instance, Ohio sends annually from 80 to 100 thousand dollars in fat cattle, Virginia a large quantity, Pennsylvania of itself in the four months which I attended, upwards of one hundred thousand dollars, and I should say upwards of double that amount annually. New-York, New-Jersey, Massachusetts, Vermont, and Rhode-Island, their proportions; not uncommon to see on a market day, upwards of fourteen hundred head of cattle of different breeds. This is the place for judgment and observation on the various kinds; you might stand on an elevated platform erected for the accommodation of the butchers and graziers, and view the different enclosures provided for the purpose of offering this large number of cattle for sale, and easily behold the beautiful dark read Devons, and point them out from all others; there is something peculiar in their color. I have the breed from black cows, in fact nearly all colours, and the calves of half and three quarters blooded, are generally red. I do not remember more than about four full-blooded ones in my time in this country being fattened for the market, but a vast number of halves, three-quarters, and seven-eighths; the four I have reference to, the two fed by Mr. Hurlbut, Winchester, Connecticut, and I cannot answer for their being full-blooded, my information respecting these two, being derived from butchers and drovers. For further information, reference might be had to your paper, No. 52, vol. 12th. I fatted a heifer four years ago, slaughtered in Philadelphia, admired for her beauty and fatness; also one fattened by Mr. Thompson of Baltimore, which excelled all for weight, agreeably to size and appearance when alive, exceeding the butcher's judgment in weight when slaughtered. Their good quality as milkers are highly spoken of; my own experience is not sufficient to state the quantity of milk they give at a milking.—My full blood calves have always been suffered to run with the cows until they generally weaned themselves. But surely Mr. Hurlbut would not keep bad milkers to make an hundred and fifty thousand pounds of cheese annually for Baltimore market, as stated in your paper, March 11, No. 52, vol. 12. But I will state what Mr. Bloomfield, a gentleman of unquestionable veracity, said when on a visit to this country, and at my house in Delaware, about six years ago. He had been living under Mr. Coke, Devonshire, [Norfolk,] England. Being his principal man to oversee his cattle, he (Mr. B.) stated, for several weeks previous to his leaving England, he had made from twenty cows, 200 lbs. of butter per week—10 lbs. for each cow, and I feel assured they must give rich milk, for the calves are always remarkably fat. No better proof for their giving good milk. Mr. Caleb Churchman, residing near Philadelphia, a considerable drover of lean stock, has been purchasing from the farmers called the Holland Company settlers in the State of New-York. He, (Mr. C.) told me about two weeks ago, that Devon cattle had taken the lead in preference to every other breed in that country. I returned from New-York on the 22d inst.; while there, I was told by the most respectable butchers and drovers in that market, that the two steers of Mr. Hurlbut weighed, one 1528, the other 1438 pounds nett beef, and were allowed by all I conversed with, to be the best pair of oxen ever seen in that city, not only for their weight proportionably to their size, but a beautiful colour, small bone, and very fine, rich beef.

ART. LXXV.—*Weight and Produce of fine Bakewell Sheep, fattened by* Mr. JOHN BARNEY.

MR. SMITH—The thirty seven of the 43 Bakewell sheep made mention of in your paper, No. 23, vol. 12, were slaughtered last week in New York, and allowed by good judges to be the best ever exhibited in that city. I sold them to Mr. John Perren for 12½ cents per lb. The thirty seven when dressed, weighed, in the presence of a number of respectable gentlemen, 4,045 lbs, amounting to $505,62½. When it is considered that twenty one of these sheep were but one year old past, fifteen but two years old past, with one of four years old this spring, you will be ready to say with me, that this breed of sheep is worthy the attention of American breeders and keepers of sheep, in preference to all others. The N. York butchers will tell you they make the best lambs that come to that market. An objection has frequently been made; that "they make the mutton too fat;" this is remedied by killing them at early age. If the Bakewell can be made to excel the common sheep in weight at the age of one year, when you have to keep the common sheep four years to bring him to the same weight, surely the preference should be given to the Bakewell. Another good quality, they have always been considered to carry the greatest weight of flesh to a smaller proportion of bone than any other sheep in the world. I feel I shall be tedious with my subject on sheep and cattle at this time; but not seeing your paper of the 18th inst. till I had prepared the above to be forwarded to you, and feeling a desire to give a most minute statement of the several weights of my thirty-seven weathers for the information of our Chester county friends, and Mr. Fow of Philadelphia, their several weights are as follow:

1, 130*	11, 157*	21, 110*	31, 89
2, 113*	12, 106*	22, 116*	32, 107*
3, 132*	13, 107*	23, 116*	33, 99
4, 97	14, 108*	24, 100	34, 87
5, 120*	15, 103	25, 120*	35, 88
6, 126*	16, 88	26, 100	36, 89
7, 120*	17, 106*	27, 117*	37, 130*
8, 105*	18, 81	28, 93	——
9, 98	19, 94	29, 138*	689
10, 132*	20, 92	30, 129*	——
1,173	1,043	1,141	

Take the twenty-two largest weights marked thus,* and you will find the average of each sheep is upwards of 30 lbs. per quarter. It must also be considered they were killed on Wednesday morning, which was the case, and not weighed till the Friday afternoon following, all this time hanging in an open shed, with their pluck taken out, and heads off, exposed to a drying wind, which must have made the weight less for

each sheep at least from 2 to 4 lbs. that it would have been if they had been slaughtered, weighed the next day and hung up in a cellar, which is the general method adopted in Philadelphia and Baltimore. Again you will see they were not weighed by half pounds, but by good weight given by the pound; you will be inclined to conclude with myself, had they been weighed by other standards they would have been made to weigh considerably more. But, their weight is sufficient to excel all other lots of sheep of the same number on record in this country, being all raised from lambs and and fatted by myself. It has been admitted by a number of English gentlemen acquainted with the feeding districts in England, they never saw a greater display of fine mutton exhibited at any one time; I might include all the butchers and drovers; they said they far excelled all others ever slaughtered in the city of New York. Mr. J. Perren, the gentleman who purchased them, was of the opinion they carried ten lbs. of wool each; if so, their skins were worth five dollars each. The weight of the loose fat I neglected to obtain; but one of their cauls was weighed at the time of their being taken out of the sheep, which weighed 20 lbs.; this was considered a great curiosity, exceeding all they had ever seen. The mode of feeding these sheep, was nothing more than common, running with others on good pasture during the summer, no grain given to them till taken to the sheep yard about the 1st of December: their food principally the ruta baga turnip, and good upland hay, with a small proportion of corn and oats per day.

Yours, most truly, JOHN BARNEY.

Philadelphia, March 29, 1831.

[The Executive Committee of the American Temperance Society have caused a large edition of the Address of Dr. Sewall, to be printed in an extra sheet of the Journal of Humanity. As an expression of our hearty concurrence in the objects of this Society, we will credit on our books *one hundred dollars* to the author of the best communication for the New York Farmer, pointing out the evils which farmers have experienced from the use of ardent spirits,—their general effects on the progress of agriculture, and the probable consequences of their total disuse by this class of our citizens. To the second best communication *thirty dollars*—and to the third best, *fifteen dollars*. The essays must be sent before the first of August next.—Competent judges will be selected. The credit will commence with the present volume, and the successful writers may balance their accounts either wholly or in part by copies of the present volume.

Those papers friendly to the temperance cause will confer a favor by giving this an insertion.—*Ed. N. Y. Farmer.*]

ART LXXVI.—*Physical effects of Ardent Spirits—Extract from an Address delivered before the Washington City Temperance Society, November* 15, 1830.—By THOMAS SEWALL, M. D. Professor of Anatomy and Physiology in the Columbian College, District of Columbia.

In view of this part of the subject, the attention of the critical observer is arrested by a series of circumstances, alike disgusting and melancholy.

1. The odour of the breath of the drunkard furnishes the earliest indication by which the habitual use of ardent spirit becomes known. This is occasioned by the exhalation of the alcoholic principle from the bronchial vessels, and air cells of the lungs—not of pure spirit, as taken into the stomach, but of spirit which has been absorbed, has mingled with the blood, and has been subjected to the action of the different organs of the body; and not containing any principle which contributes to the nourishment or renovation of the system, is cast out with the other excressions as poisonous and hurtful; and this peculiar odour does not arise from the accidental or occasional use of spirit; it marks only the habitual dram-drinker, the one who indulges daily in his potation; and although its density varies in some degree with the kind of spirit consumed, the habits and constitution of the individual, yet it bears generally a close relation to the degree of intemperance. These observations are confirmed by some experiments made on living animals by the celebrated French Physiologist, Magendie. He ascertained that diluted alcohol, a solution of camphor, and some other odorous substances, when subjected to the absorbing power of the veins, are taken up by them, and after mingling with the blood, pass off by the pulmonary exhalants. Even phosphorus injected into the crural vein of a dog, he found to pass off in a few moments from the nostrils of the animal in a dense white vapor, which he ascertained to be phosphoric acid.

Cases have occurred, in which the breath of the drunkard has become so highly charged with alcohol, as to render it actually inflammable by the touch of a taper. One individual in particular, is mentioned, who often amused his comrades by passing his breath through a small tube, and setting it on fire, as it issued from it. It appears also, that this has sometimes been the source of that combustion of the body of the drunkard, which has been denominated spontaneous; many well authenticated cases of which are on record.

2. The perspirable matter which passes off from the skin, becomes charged with the odor of alcohol in the drunkard, and is so far changed in some cases as to furnish evidence of the kind of spirit drank. I have met with two instances, says Dr. McNish, the one in a claret, and the other in a port drinker; in which the moisture that exhaled from their bodies, had a ruddy complexion, similar to the wine on which they had committed their debauch.

3. The whole system soon bears marks of debility and decay. The voluntary muscles lose their power, and cease to act under the control of the will, and hence all the movements become awkward, exhibiting the appearance of stiffness in the joints. The positions of the body, also, are tottering and infirm, and the step loses its elasticity and vigor. The muscles, and especially those of the face and lips, are often affected with a convulsive twitching, which produces the involuntary winking of the eye, and quivering of the lip, so characteristic of the inebriate. Indeed, all the motions seem unnatural and forced, as if restrained by some power within. The extremities are at length seized with a tremor, which is more strongly marked after recovery from a fit of intoxication. The lips lose their significant expression, and become sensual—the complexion assumes a sickly leaden hue, or is changed to an unhealthy, fiery redness, and is covered with red streaks and blotches. The eye becomes watery, tender, and inflamed, and loses its intelligence

and its fire. These symptoms, together with a certain œdematous appearance about the eye, bloating of the whole body, with a dry, feverish skin, seldom fail to mark the habitual dram-drinker; and they go on increasing, and increasing, till the intelligence and dignity of the man is lost in the tameness and sensuality of the brute.

But these effects, which are external and obvious, are only the "signals which nature holds out, and waves in token of internal distress;" for all the time the inebriate has been pouring down his daily draught, and making merry over the cup, morbid changes have been going on within; and though these are unseen, and it may be unsuspected, they are fatal, irretrievable.

A few of the most important of these changes I shall now describe:

4. The stomach and its functions.

This is the great organ of digestion. It is the chief instrument by which food is prepared to nourish, sustain and renovate the different tissues of the body, to carry on the various functions, and to supply the waste which continually takes place in the system. It is not strange, therefore, that the habitual application of the organ, of any agent calculated to derange its functions, or change its organization, should be followed by symptoms so various and extensive, and by consequences so fatal. The use of ardent spirit produces both these effects; it deranges the functions of the stomach, and if persisted in, seldom fails to change its organic structure.

The inebriate first loses his appetite, and becomes thirsty and feverish; he vomits in the morning and is affected with spasmodic pains in the region of the stomach. He is often seized with permanent dyspepsy, and either wastes away by degrees, or dies suddenly of a fit of cramp in the stomach.

On examining the stomach after death, it is generally found irritated, and approaching a state of inflammation, with its vessels enlarged, and filled with black blood; and particularly those of the mucous coat, which gives to the internal surface of the stomach the appearance of purple or reddish streaks, resembling the livid patches seen on the face of the drunkard.

The coats of the stomach become greatly thickened and corrugated, and so firmly united as to form one inseparable mass. In this state, the walls of the organ are sometimes increased in thickness to the extent of ten or twelve lines, and are sometimes found also in a scirrhus, or cancerous condition.

The following case occurred in my practice several years since. A middle aged gentleman, of wealth and standing, had long been accustomed to mingle in the convivial circle, and though by no means a drunkard, had indulged at times in the use of his old cogniac, with an unsparing hand. He was at length seized with pain in the region of his stomach, and a vomiting of his food an hour or two after eating. In about eighteen months he died in a state of extreme emaciation.

On opening the body after death, the walls of the whole of the right extremity of the stomach were found in a scirrhus and cancerous condition, and thickened to the extent of about two inches. The cavity of the organ was so far obliterated as scarcely to admit the passage of a probe from the left to the right extremity, and the opening which remained was so unequal and irregular as to render it evident that but little of the nourishment he had received, could have passed the lower orifice of the stomach for many months.

I have never dissected the stomach of a drunkard, in which the organ did not manifest some remarkable deviation from its healthy condition. But the derangement of the stomach is not limited to the function of nutrition merely. This organ is closely united to every other organ, and to each individual tissue of the body, by its sympathetic relations. When the stomach, therefore becomes diseased, other parts suffer with it. The functions of the brain, the heart, the lungs, and the liver become disordered, the secretions are altered, and all the operations of the animal economy are more or less affected.

5. The liver and its functions.

Alcohol, in every form and proportion, has long been known to exert a strong and speedy influence on this organ, when used internally. Aware of this fact, the poultry dealers of England, are in the habit of mixing a quantity of spirit with the food of their fowls, in order to increase the size of the liver; so that they may be enabled to supply to the epicure a great abundance of that part of the animal, which he regards as the most delicious.

The influence of spirit on the liver is exerted in two ways: First, the impression made upon the mucous coat of the stomach, is extended to the liver by sympathy: the second mode of action is through the medium of the circulation, and by the immediate action of the alcoholic principle on the liver itself, as it passes through the organ, mingled with the blood. In whichsoever of these ways it operates, its first effect is to increase the action of the liver, and sometimes to such a degree as to produce inflammation. Its secretion becomes changed from a bright yellow to a green or black, and from a thin fluid to a substance resembling tar in its consistence. There soon follows also an enlargement of the liver and a change in its organic structure. I have met with several cases in which the liver has become enlarged from intemperance, so as to occupy a greater part of the cavity of the abdomen, and weighing from eight to twelve pounds, when it should have weighed not more than four or five.

The liver sometimes, however, even when it manifests great morbid change in its organic structure, is rather diminished than increased in its volume. This was the case in the person of the celebrated stage actor George Frederick Cooke, who died a few years since in the city of New-York. This extraordinary man was long distinguished for the profligacy of his life, as well as for the native vigor of his mind and body. At the time of his death the body was opened by Dr. Hosack, who found that the liver did not exceed its usual dimensions, but was astonishingly hard, of a lighter color than natural, and that its texture was so dense as to make considerable resistance to the knife. The blood vessels, which in a healthy condition are extremely numerous and large, were in this case nearly obliterated, evincing that the regular circulation through the liver, had long since ceased; and tubercles were found throughout the whole substance of the organ.

I have met with cases in the course of my dissections, in which the liver was found smaller than natural, shrivelled, indurated, its blood vessels diminished in size and number, with the whole of its internal structure more or less changed. In consequence of these

morbid changes in the liver, other organs become affected, as the spleen, the pancreas, &c. either by sympathy, or in consequence of their dependence on the healthy functions of the liver for the due performance of their own

6. Of the Brain and its functions:

Inflammation and engorgement of this organ are frequent consequences of intemperance, and may take place during a debauch—or may arise some time after, during the stage of debility, from a loss of the healthy balance of action between the different parts of the system. This inflammation is sometimes acute, is marked by furious delirium, and terminates fatally in the course of a few days, and sometimes a few hours. At other times it assumes a chronic form, continues much longer; and then frequently results in an effusion of serum, or an extravasation of blood, and the patient dies in a state of insensibility, with all the symptoms of compressed brain. Sometimes the system becomes so saturated with ardent spirit, that there is good reason to believe, the effusions which take place in the cavities of the brain, and elsewhere, are composed in part at least, of the alcoholic principle. The following case occurred, not long since, in England, and is attested by unquestionable authority.

A man was taken up dead in the streets of London soon after having drank a quart of gin on a wager. He was carried to the Westminster Hospital, and there dissected. "In the ventricles of the brain was found a considerable quantity of limpid fluid, distinctly impregnated with gin, both to the sense of smell and taste, and even to the test of inflammability. The liquid appeared to the senses of the examining students, as strong as one third gin, and two-thirds water."

Dr. Armsrong, who has enjoyed very ample opportunity of investigating this subject, speaks of the chronic inflammation of the brain and its membranes, as frequently proceeding from the free use of strong liquors.

It is a fact familiar to every anatomist, that alcohol even when greatly diluted, has, by its action on the brain after death, the affect of hardening it, as well as most of the tissues of the body which contain albumen, and it is common to immerse the brain in ardent spirit for a few days, in order to render it the firmer for dissection.

On examinining the brain after death, of such as have long been accustomed to the free use of ardent spirit, it is said the organ is generally found harder than in temperate persons. It has no longer that delicate and elastic texture. Its arteries become diminished in size, and lose their transparency, while the veins and sinews are greatly distended and irregularly enlarged.

This statement is confirmed by my own dissections, and they seem also to be in full accordance with all the intellectual and physical phenomena displayed in the drunkard, while living.

7. The Heart and its functions:

It has generally been supposed, that the heart is less frequently affected by intemperance, than most of the other vital organs; but from the history of the cases which have come under my own observation, I am convinced that it seldom escapes disease under the habitual use of ardent spirit. And why should it, since it is thrown almost perpetually into a state of unnatural exertion, the very effect produced by the violent agitation of the passions, the enfluence of which upon this organ is found so injurious.

The following case came under my notice, a few winters since. A large athletic man, long accustomed to the use of ardent spirit, on drinking a glass of raw whiskey, dropped instantly dead. On carefully dissecting the body, no adequate cause of the sudden cessation of life could be found in any part, except the heart. This organ was free from blood, was hard and firmly contracted, as if affected by spasm. I am convinced that many of those cases of sudden death which take place with intemperate persons is the result of a spasmodic action of the heart, from sympathy with the stomach, or some other part of the system. The use of ardent spirit, no doubt, promotes also the ossification of the valves of the heart, as well as the developement of other organic affections.

8. The Lungs and their fuctions.

Respiration in the inebriate is generally oppressed and laborious, and especially after eating, or violent exercise; and he is teased with a cough, attended with copious expectoration, and especially after his recovery from a fit of intoxication; and these symtoms go on increasing, and unless arrested in their progress, often terminate in consumption.

This affection of the lungs is produced in two ways: first, by the immediate action of the alcoholic principle upon the highly sensible membrane which lines the trachea, bronchial vessels, and air cells of the lungs as poured out by the exhalants: and second, by the sympathy which is called into action between the lungs and other organs, already in a state of disease, and more especially, that of the stomach and liver.

I have met with many cases in the course of my practice, of cough and difficult breathing which could be relieved only by regulating the functions of the stomach, and which soon yielded, on the patient ceasing to irritate this organ with ardent spirit. I have found the liver still more frequently the source of this affection, and on restoring the organ to its healthy condition, by laying aside the use of ardent spirits, all the pulmonary symptoms have subsided.

On examining the lungs of the drunkard after death, they are frequently found adhering to the walls of the chest; hepatized, or affected with tubercles.

[The following is from the Reports of the Massachusetts Agricultural Society for 1830.]

ART. LXXVII.—*Turning in Green Crops for Manure.*

To Mr. William Buckminster, of Farmingham, Middlesex County, the committee award the premium of $20 for his experiment 'of turning in green crops as a manure.' This attempt of Mr. Buckminster, in the judgment of the committee well deserves the attention of farmers, and particularly of those who live too far from a city or town to buy manure. The practice of enriching or renovating land by ploughing in green crops, is a very common one in Europe, though hardly known here. But would it not be well to try it? Our farmers in general have more land than they can till, owing to their not having manure enough, or because it is too far from their barn yards; and hence it is that some large farms, and naturally of good soil, actually produce less, but with infinitely more labor,

than much smaller ones that are well cultivated. Indeed the desire of having large farms, without giving to them the necessary outlay is the common error of our country. The inevitable result is scanty crops and more labor. An acre is mown, often, for a ton of hay or less, where with decent care, two tons might be had. A pasture often of a dozen acres, which might be easily ploughed, does not afford food enough for one cow; whereas at small expense, it might be made to support four or five. Now, in a country like ours, where produce is so cheap and labor so dear, this is unquestionably a wrong, not to say a ruinous mode of management,—a mode which drives our children to the Western or Eastern country for want of land, who might have enough here if rightly used.—But if farmers *will* have more land than they can till in the ordinary way, for want of manure, what better plan can be devised than that of ploughing, and sowing, and turning in the green crops, with the sole view of fertilizing their lands? Whether it be afterwards used for mowing, or tillage, or grazing, still it must be good husbandry, if we can rely on the testimony of Mr. Buckminster, and on the experience of farmers in England.

The remarks of Mr. Buckminster on bog or meadow mud, are worthy of notice. It is quite certain, as he says, that used in its crude state, as dug from the meadow, it is inert and seemingly useless; but when put in the barn yard and hogpen, and trampled upon and mixed with manure, it becomes an excellent compost. As almost every farm has bog meadow, it must be well known, that after being several months in the barn yard and pig sty, it makes an excellent manure for corn in the proportion of about two-thirds mud and one-third dung. Whether Mr. Buckminster's notice of carting it at once to the ground where wanted to save labor, and there mixing it with manure, is a correct one, every man will judge for himself. The common idea has been, that to take it to the barn-yard *first* is better. But all must agree that it may be very profitably used as food for plants, and therefore ought not to be overlooked in the management of the farm.

To the Trustees of the Massachusetts Agricultural Society.

I have been induced, partly by the premium you offer, and partly for my own satisfaction, to make some experiments as to the value of green crops ploughed in for manure, and I send you the result.

In the middle of May, 1828, I ploughed up three and a half acres of pasture that had, for many years, been tilled by the former owner, until the crops would not repay the labor. It was a light loam, but not sandy. It had been so reduced, that ten acres did not afford sufficient pasturage for one cow through the season. We sowed immediately after this ploughing, a bushel of buckwheat to the acre, and in six weeks rolled down the buckwheat in the direction we intended to plough, and then ploughed and sowed as before. In the latter part of August we turned in a second crop of buckwheat—having rolled it down flat as at first, and then seeded it with clover, herds-grass and red-top, one peck and a half to the acre. Most of the clover was winter killed, and a great part of the herds-grass and red-top. Early in the spring of 1829, we sowed 10 lbs. of clover seed to the acre; and with a light harrow, went slowly over the whole. The seed took well, but the clover was not high enough for the scythe, when the other grass was fit to cut. We mowed what had not been winter killed; and where it yielded best, we obtained one ton of herds-grass to the acre. Immediately after mowing, we turned in our cattle, and fed the grass close. Last spring, (1830) the grass was so forward we turned in our cattle on the 19th of April. There were eight acres in the whole field, but there were only five acres that bore any grass worth 50 cents. These five acres were the three and a half managed as I have stated above, and one and a half on which grass-seed was sowed in April, 1830; and fifty bushels of leached ashes mixed with loam, spread on the surface. On these five acres, (and the three which bore nothing,) I pastured four cows constantly for four months, wanting two days, and they had an abundance of feed. I never had any pasture-ground yield so well before. I think these green crops improved the land as much as a good dressing of manure, and the comparative expense I estimate as follows on one acre, viz.

With Manure.

20 ox cart loads of manure	$24 00
Hauling ¾ mile and spreading	5 00
Ploughing once, green sward	2 00
Harrowing and sowing	1 00
	$32 00

With green crops.

First ploughing, green sward	$2 00
2d ploughing, and rolling with man and horse	1 00
3d ploughing, and rolling do. do.	1 00
Three harrowings do. do.	1 00
Two bushels buckwheat	1 55
Sowing do.	25
	$6 80

Thus you will see, that it has cost me less than one fourth as much to enrich my land with green crops, as it would with manure. If my grass had not been winter killed the first year, I intended to have shown you the precise weight of hay cut on an acre. The above estimate of the cost of manure is less by twelve cents per load, than it can be purchased for in this place. I have given more within two years.

Farmers ought, in duty, to make the trial for themselves. They generally have much land, (miscalled under improvement) ten acres of which will not pasture a cow. Such land usually lies distant from the house. They say they cannot make manure enough for the whole farm, and they find it more profitable to lay their manure on lands nearer home. They do not seem to conceive it possible to enrich them otherwise than with stable manure. If they would plough and sow properly they could make the whole rich.

They further object to growing crops to be ploughed in; for, say they, 'The growing crop will exhaust the land as much as it will enrich the same when ploughed in, so that we end where we began.' This would be correct reasoning, undoubtedly, if the growing crop obtained its whole sustenance from the ground. It probably does not one sixth part. It was the knowledge of this principle that gave me confidence of success in the experiment. The advantages of green crops for manure are greater where the lands are distant from the barn, than in other cases.

Respectfully yours, WM. BUCKMINSTER.

Framingham, Nov. 10, 1830.

ART. LXXVIII.—*Soil, Climate, and Productions of Illinois.*

Soil.—The soil of Illinois is, almost without exception, of the best quality. There is not, on the continent of North America, another tract of country, of equal extent, that can be compared to this for beauty and fertility of soil. In such an extent of country, it must of course be expected that the soil will vary in different parts; yet the greatest portion of what is here called *poor*, will produce greater crops than any of the *good* land east of the Alleganies, with the same culture.

Climate.—The climate of Illinois is variable: In summer the heat is great, but is ameliorated by continual breezes, from ten o'clock in the morning till four or five in the evening.

In winter the cold at times is very severe, and the ground has been known to be covered with snow from 6 to 10 weeks at a time; in other winters there has been no snow, and the ground remains unfrozen.—However, from the difference of latitude between the North and South parts of the State, great differences are to be expected in the degrees of heat and cold.

Productions.—As Illinois lies *back* of all the Atlantic States, from Virginia to Massachusetts, her productions are similar to those of Virginia, Maryland, Pennsylvania, N. Jersey, N. York, Connecticut, Rhode-Island and Massachusetts. The sweet potatoe of Virginia and the Irish potatoe of Massachusetts, flourish equally well here. Cotton grows well in the Southern part of the state, and is equal in staple to Tennessee; the wheat of the Middle and Northern parts of the State is equal, in quality and quantity, to any raised in the Union; Indian Corn is raised in greater quantities, and with less labor than in any other part of the world. No part of the U. States is better adapted to the raising of the different kinds of Fruit than this—indeed from the immense orchards of *wild apples* and *plums*, one would suppose this was the original country from which they sprang; *roots* and *vegetables* are raised in as great perfection, and of as fine flavor as in any other country; and even the Eggs laid in this state, are thought, to partake of that fine flavor so peculiar to the real *English eggs*; this however, may originate from the *cacklers* having been, originally, imported from that country.—*Western Plougboy.*

[The following article is taken from the N. E. Farmer. It is a very interesting subject. We hope the experiments of farmers will establish the point whether or not it is a mere production of the *first of April.*]

ART. LXXIX.—*Spayed Cows give Milk without intermission or diminution of quantity.*

MR. FESSENDEN—Some years since, I passed a summer at Natchez, and put up at the Hotel then kept by Mr. Thomas Winn. During the time that I was there, I noticed two remarkably fine cows, which were kept constantly in the stable, the servant who had charge of the horses, feeding them regularly, three times a day, with *green Guinea grass*, cut with a sickle.

These cows had so often attracted my attention, on account of the great beauty of their form and deep red color, the large size of their bags and the high condition in which they were kept, that I was at length induced to ask Mr. Winn, to what breed of cattle they belonged, and his reasons for keeping them constantly in the stable, in preference to allowing them to run in the pasture, where they could enjoy the benefit of air and exercise, and at the same time crop their own food, and thereby save the labor and trouble of feeding them? Mr. Winn in reply to these inquiries, stated, that the two cows which I so much admired, were of the common stock of the country, and he believed of *Spanish origin*—but that they were *both spayed cows* and that they had given milk, either two or three years. Considering this a phenomenon (if not in nature, at least in art,) I made further inquiries of Mr. Winn, who politely entered into a very interesting detail, communicating facts, which were as extraordinary, as they were novel to me, and supposing that they will prove equally as interesting to your numerous agricultural readers, as they were to me, I am induced, on the request of a friend, to offer them for publication in your very valuable Journal, in the hope, that some of the farmers who supply our large towns with milk, will deem them of sufficient importance to make experiments for the purpose of ascertaining whether the results which they may obtain, will corroborate the facts stated by Mr. Winn, and which, should they be fully confirmed, may lead to great and important benefits, not only to farmers, but to tavern-keepers and other inhabitants of cities, and villages who now keep cows, in order that they may be sure of a constant supply of *pure* and *unadulterated* milk.

Mr. Winn, by way of preface, observed, that he had in former years been in the habit of reading the English Magazines which contained accounts of the ploughing matches which were annually held in some of the Southern Counties of England, performed by cattle, and that he had noticed that the prizes were generally adjudged to the plough-men, who worked with *spayed heifers*—and although there was no connexion between that subject and the facts which he should state, it was nevertheless the cause which first directed his mind into that train of thought and reasoning, which finally induced him to make the experiments which resulted in the *discovery* of the facts which he detailed, and which I will narrate as accurately as my memory will enable me to do it, after the lapse of more than twenty years.

Mr. Winn's frequent reflections, had, (he said) led him to the belief—'*that if cows were* SPAYED *soon after calving, and while in a full flow of milk, they would continue to give milk for many years, without intermission or any diminution of quantity, except what would be caused by a change from green to dry or less succulent food,*'

To test this *hypothesis*, Mr. Winn caused a very good cow, then in full milk, to be *spayed;* the operation was performed about one month after the cow had produced her *third* calf: it was not attended with any severe pain, or much or long continued fever; the cow was apparently well in a few days and very soon yielded her usual quantity of milk, and continued to give milk freely, for several years, without any intermission, or any diminution in quantity, except when the feed was scarce and dry—but a full flow of milk, always returned, upon the return of a full supply of *green food.* This cow ran in the Mississippi low grounds or swamp, near to Natchez, got cast in deep

mire and was found dead. Upon her death, Mr. Winn caused a *second* cow to be *spayed*, the operation was entirely successful, the cow gave milk constantly for several years—but in jumping a fence, stuck a stake in her bag, that inflicted a severe wound, which obliged Mr. Winn to kill her. Upon this *second loss*, Mr. Winn had two other cows *spayed*, and to prevent the recurrence of injuries from similar causes with those which had occasioned him the loss of the two *first spayed* cows, he resolved to keep them always in the stable, or some safe inclosure and to supply them regularly with *green food*, which that climate, throughout the greater part, if not all the year, enabled him to procure.

The result in regard to the two last spayed cows, was as in the case of the two first, entirely satisfactory, and fully established, as Mr. Winn believed, the fact, that the *spaying* of cows, *while* in full milk, will cause them to continue to give milk during the residue of their lives or until prevented by old age.

When I saw the two last spayed cows it was, I believe, during the third year that they had constantly given milk, after they were spayed.

The character of Mr. Winn, (now deceased) was highly respectable, and the most entire confidence could be reposed in the fidelity of his statements, and as regarded the facts which he communicated in relation to the several cows which he had spayed, numerous persons with whom I became acquainted, fully confirmed his statements.

At the time to which I alluded, I endeavored to persuade Mr. Winn to communicate the foregoing facts to the late Judge Peters, then president of the Agricultural Society of Pennsylvania. But he was restrained from complying with my request by an extreme unwillingness to appear before the public, and *peradventure*, his *discovery* might prove not to be new, as doubts in regard to facts, might *where he was unknown*, subject him to some degree of ridicule.

The many and great advantages that would result to the community, from the possession of a stock of cows, that would be *constant milkers*, are too obvious, to require an enumeration.

Should gentlemen be induced from this communication, to make experiments, they will find it better to spay cows which have had several calves, rather than heifers, as at that age, their bags are usually large and well formed, and are capable of carrying a much greater quantity of milk (without pain or inconvenience,) than younger animals. VIATOR.

Keene, N. H. April 1, 1831.

[The spring and summer are the seasons for trying experiments in the garden and the field. Every person who tills the soil, should at least amuse himself in experimenting on the productions of his culture. Those whose means are limited should confine their attention to those of little or no expense. As a specimen, we give the following from the American Farmer.]

ART. LXXX.—*Improvement of Corn.*

The Editor of the American Farmer has been several years in the habit of improving corn by *crossing* different varieties, with decided advantage. If he has a variety with small ears, which he deems good in other respects, he plants it in the rows with another kind with large ears, that flowers at the same time; and, at the time of the tassels appearing, carefully cuts away the male flowers (or tassels) of the large eared kind. By this operation, large ears are produced of the small eared kind. There are some kinds of early corn, which, though excellent in other respects for green corn, are very much injured by the coloring matter of their red cobs. This he attempted to remedy last summer by transferring the corn from the red to the white cob in the same way, and he thinks with success. He planted some of the red cob Tuskarora, which he thinks the best early green corn, in the rows with the largest eared white cob sugar corn he could find, about half and half. As the tassels of the sugar corn made their appearance, he carefully cut them away, leaving the whole to be supplied by the pollen from the tassels or male flowers of the red cob Tuscarora. The result was, he had the Tuskarora corn on the white cob of the sugar corn, as he desired. From his experiments, the Editor concludes, that any variety of corn may at pleasure, thus be transferred to the cob of any other variety that flowers at the same time; and that if a large eared kind can be found that flowers at the proper time, the smallest eared kind may be made to produce large ears by the above process. He has not extended his experiments to the improvement of the cob of field corn; but, has no doubt, that by the same process, the thick cob of some kinds may be improved. Suppose the thick cob kind were planted in the row with some other that usually has a small cob, and the tassels of the latter cut off as above directed, would not the desired variety of corn be obtained on the small cob?

ART. LXXXI.—*Proceedings of the New-York Horticultural Society.*

January 25.—A report from the Council, with a list of premiums for 1831. Wm. Brown, J. Anderson, and D. Goddard were elected members.

February 22.—Messrs. Saltus, Halsey and Oakley, were appointed a committee to obtain information in relation to the Sisal Hemp, Agave Americana, and to report to the Society.

March 8.—Mr. S. B. Collins presented to the Society, Dr. Torrey's Compendium of the Flora of the Northern States. Thanks of the Society were ordered to be returned to him. Mr. Hogg presented a prospectus of a periodical to be published at Washington, entitled "The American Botanical Register." Referred to the committee on the Library.

Report from the committee for procuring a more convenient room was accepted—The spacious room corner of Broadway and Bleecker-street having been obtained.

The following persons were appointed an Inspecting Committee for 1831. Dr. Ireland, M. Flov, T. Hogg, W. Neale, W. Wilson, A. Smith, J. W. Wyman, J. McBrair, B. V. Melick, J. K. Hamilton, E. Wade, Jr., M. Burnham.

Mr. Amos Keeler was elected a member.

April 5.—Mr. E. Wade appointed assistant Librarian. The following gentlemen were elected members: Joseph Brewster, James Anderson, and James Dill, Jr.

Mr. Neale and Mr. Hogg exhibited Hyacinths and Polyanthuses.

April 19.—Mr. Neale presented a very beautiful seedling auricula, dark chocolate, white center, green edges, well defined eye, five pips. The following letter was read, and the Rice distributed.

To John Wyman, Esq.

The small parcel of Wild Rice you will receive with this note, was sent me from the Fox River, which flows from Lake Winnebago and empties into Green Bay, where it grows in great abundance, and is food for man and beast.

The wild ducks live on it. There is no food they are so fond of. Please present it to the Horticultural Society for their use and distribution.

Yours respectfully, PETER TOWNSEND.

New-York, March 4, 1831.

[The following article is taken from the Introduction to the 'Farmer and Grazier's Manual,' now in press. Mr. Fisher, the author, has had in England, much practical experience in farming, particularly in breeding and fattening cattle. The work should be in the possession of every farmer, who wishes to improve his judgment in buying and selling domestic animals. It will be ready early in May, and can be had at the office of the N. York Farmer, or at the Horticultural Book Store 550 Broadway. Price fifty cents.]

ART. LXXXII.—*Tables and Rules for determining the Net Weight of Cattle, from their live Weight.* Extracted from the Farmer and Grazier's Manual.

Having frequently experienced in the course of my agricultural pursuits, the want of a work like the present, it is natural to suppose that many others may sometimes have felt a similar inconvenience. Impressed with this idea, I have been induced to give publicity to the following Tables, which were originally intended only for my private reference. The attention however, which gentlemen of landed property have of late years paid to the improvements of the breed of domestic animals, and the encouragement which the professional breeders and feeders have received from their patronage and support, have materially promoted the public interest. But, the benefits which ought to attend superior management, will not be fully attained by each individual, unless the farmer and grazier as well as the seller possess an equal knowledge with the butcher or purchaser of the net weight of the carcass, of the proportion of the offal, and consequently of the true value of the stock he may have to dispose of.

The object of the present work is to communicate that information in a *certain* and *easy* manner to the former, as the seller, which is daily obtained by the latter, as purchaser by habit and experience, though certainly with less accuracy.

Nothing but continual practice will enable any one to estimate or *guess* the weight of animals with any degree of precision; and if the attention of a person deemed expert have been for a length of time diverted from that practice to other objects, he will not, on resuming it, immediately feel that confidence in his own opinion, which he possessed in the regular exercise of his talent.

It must necessarily follow, that those who have only accasionally a few fat animals to dispose of, *on the "leg or foot"* with no other opportunity of acquiring information than what their own concerns afford them, will meet a purchaser upon very unequal terms, it being the principal study of the latter who, besides the opportunity of handling the Animals when alive has the additional advantage of weighing them when dead, and in general, of reserving to himself the best evidence for regulating his future judgement.

The reader must be aware, that in disposing of most productions of the soil, the weight or measure is usually known, and the only question to be determined is, the market price, which will of course vary according to the quality, the quantity in market, and the supply required. But in dealing for fat cattle the weight is separately computed by each party, and the value calculated according to their respective computations of the weight, and estimations of the quality; which frequently occasions material difference in the real value, particularly when either of the parties happens to be inexperienced.

In order to reduce to a *System*, that which has hitherto been conducted with considerable uncertainty—to ascertain, with a degree of precision *hitherto unknown*, the net profitable weight of Cattle, Calves, Sheep and Swine, and thus enable a seller to meet a purchaser upon equitable terms, the following *Tables* were composed, which show the proportion that the carcasses or quarters of Animals dead, bear to their gross LIVE WEIGHT.

The *Tables* consist of a column for the LIVE WEIGHTS, and of three columns denoting the DEAD WEIGHTS of carcass, according to the different state of fatness; viz. one for animals that are only *half fat*, one for those *moderately fat*, and the other for those that are *extra fat*, or such as have arrived at a perfect state of RIPENESS.

In the TABLE for Cattle, the proportional weight of HIDE and TALLOW is given in a fifth column: and it will, in most cases be found, if the *carcass* exceed the weight found by the TABLES (according to the degrees of fatness of the animals as before explained) that their will be a deficiency in the weight of the hide and tallow; and when the carcass does not weigh so much as stated in the Tables, it may safely be concluded that there is an excess of hide and tallow. This may arise from different causes: but perhaps nothing contributes to produce this variation more, than the age of the animal; young animals seldom having so large a proportion of *loose fat* or tallow, as those which are older: or to speak technically, "they never die so well."

It must however occur to the reader, that the Tables will, in either case, show the Net profitable weight, at the same time allowing the buyer a fair proportion of offal, when due attention is paid to *the accuracy* in weighing the animals while *alive*.

Those animals having a propensity to early maturity, usually lay the fat on externally, and have a smaller proportion of internal loose fat; whereas those which are not, or cannot be spared from the yoke to be fatted till a later period, have a greater inclination to loose fat, or tallow, and the carcass is in that case proportionally lighter.

The quality of the flesh, and the aptitude to fatten, though indicated by external points, as well as the supposed internal fatness, yet, without the experienced handling of the Grazier or Butcher, these points are seldom ascertained, hence the necessity of the Tables

for those who know when an animal is fat, but are not competent to guess the net weight of the carcass.

ART. LXXXIII.—*Miscellaneous, Original and Selected.*

Weavel and Smut in Wheat.—Mr. FLEET, among the directions which I have found in looking over the volumes of the N. York Farmer, for destroying Weavel in Wheat, is the laying wet cloths in the bens.—From the experiments I have made, I find dry bags in which has been flour, answer the purpose much better. Do these destructive insects seek the flour left in the bags? If so, could any means be, or have any been devised from this circumstance, to destroy them more effectually?

Two persons bought seed wheat of me, in which there had been some smut. In the crop of one, there was a great deal of smut, that of the other was free from it. Was this difference owing to the soil? An answer to these inquiries would be acceptable.

Newark, N. J. April 1831. N. W. T.

Yellow Locust, Robinia pseudo acacia—Mr. Wm. Buckminster of Framingham, encouraged by a premium of fifty dollars, offered by the Massachusetts Agricultural Society, sowed some seed in 1828. He first poured boiling water on them and let them soak three or four days. He then sowed them in his garden.—In the spring following, he transplanted them in worn-out land, in rows eight feet apart, and four feet distant in the rows. On an acre he has 1000 trees, some of which are four and a half feet in circumference. Many a farmer would add to the value of his farm by following this example.

Currying Cows.—Cows should be curried as often as horses, particularly when they are shedding their hair. Independent of other consequences, it tends to prevent them from licking themselves, by which they too often swallow the hair, and receive injury.

Chickens destroy Insects.—D. T. recommends, in the Genessee Farmer, as the most effective plan to destroy insects, to put chickens, as soon as they leave the nest, into the garden. The hen is confined under a coop.

Fattening Hogs.—A writer in the Genessee Farmer, remarking on the article on this subject, in the New-York Farmer, by a 'Scientific Farmer,' gives the following directions.

"In the spring as soon as the grass has attained a sufficient growth to afford a good bite, the hogs are let out of the pen and put upon pasture, (clover is the best) in which there is plenty of running water, and fed regularly about two quarts of corn meal to each hog, per day—kept well salted, and occasionally mix with the feed a little sulphur, salt petre, &c. as preventives against disease. About the first of October, they are again shut up and fed high a few weeks upon boiled potatoes and corn until the weather is cool enough for butchering. Since adopting this method, I have always realized from a hundred to a hundred and fifty pounds more pork with the same expense than I could get from a hog of the same quality (in the spring) treated in the usual manner of pasturing during the summer, and fattening in the fall upon raw corn and cold water.

I have never been able to make hogs grow very rapidly upon grass alone, but with the aid of a little grain they may be made to thrive and grow much faster than one would suppose who has not tried it; and when fed in such small quantities, while running to grass, they will thoroughly digest it without boiling. There are other advantages derived from fattening hogs during the summer—they are always peaceable and contented; your pork is ready for the fall market, and the trouble is out of the way before cold weather comes on.

Those who keep a dairy, and feed their whey and buttermilk to hogs, would find it much to their advantage, I think, to mix with it a little meal, as hogs fatten much faster and easier in warm than cold weather."

Gypsum near the Ocean.—A writer in the Middletown Sentinel living seventeen miles from Long Island Sound, speaks from his own experience since 1796, of the benefit of using Plaster of Paris as a manure, particularly in dry seasons. He finds it answer an excellent purpose for flax, potatoes and grass. He generally puts it on the same land but once in six, eight, or ten years. The crop of corn in seasons that were not wet, has often been doubled. Nova Scotia Plaster is not all equally good; and the same is the case with the imported. It should be ground in fair weather, and immediately applied to the soil. He recommends sowing it on ground recently mowed to prevent the grass from being parched by the sun.

Quere.—Has Plaster of Paris been *sufficiently* tryed on Long Island?

Making Cider.—On page 81, it is said the rules on which the making good sugar depends, are careful straining and cleanliness. With equal propriety it may be said, that good cider depends on the observance of the same rules—the juice carefully strained from the pulp. It has long been our opinion that too much carbonic acid is suffered to escape during fermentation, producing either too much alcohol or acetic acid. We perceive some of the best cider makers recommend the prevention of the escape of carbonic acid gas by laying light substances, such as cloths or leaves on the bung-hole, while the liquid is under fermentation.

Chalk for Calves.—To prevent the *scours* in young calves, a little chalk is recommended to be put in the milk.

Prickley Comfrey, Symphatum asperrimum—This plant, brought from near the Caspian Sea, is found to be valuable for food for cattle, as well as for ornament. It is eaten by horses, cows, sheep, hogs and poultry. It will grow on all soils, and in all situations. Some of the seeds were recently given to the Monroe Horticultural Society.

Weaning Calves.—Gorham Parsons, Esq. in a letter to the Rev. Gardener B. Perry, recommends calves that you design to raise, to be taken from the cow when but one or two days old, unless the bag of the cow is hard or caked. Two quarts of milk should be given morning and evening. As the calf increases in size, add at first, a pint of water of the same temperature as the milk, with a little Indian meal or wheat bran. He should be taught to eat grass as soon as possible, and constantly furnished with salt.

The Newtown Spitzenberg Apple, Matchless.—"A great reputation attaches to a class of American apples called the Spitzenbergs, of which this is the best; but they are not to be compared with such fruit as the Ribston Pippin, the Cornish July-flower, the Golden Harvey, and others of our fine English varieties.—This is, however, an apple of merit. It bears well, is a pretty good bearer on a standard, and will keep till the end of January."—*Pom. Mag.*

Prevention of the Mildew on Peach and Nectarine Trees.—Sir, the following preventive of the mildew on peach and nectarine trees has simplicity, as well as the experience of many years, to recommend it:—Take of sulphur and rain or river water, in proportions of 2 oz. of sulphur to every 4 gallons of water. Put the quantity which may be required into a copper or boiler, and let it (after it commences boiling) boil for half an hour; after which it may be taken out, or suffered to remain until it becomes of a tepid state, when it ought to be applied to the trees by means of the garden engine or syringe, as in a common washing with water. The time for applying it is annually, as soon as the fruit is set and considered out of danger. —*Louden.*

Ancient Agriculture and Horticulture in Africa.—M. Champollion, now in Egypt, has sent home a number of drawings, copied from the tombs. Among these are the following:—Tilling the ground with oxen, or by hand; sowing; treading the ground by rams, and not by hogs, as Herodotus says; five sorts of ploughs; the use of the pickaxe; the reaping of wheat; the gathering of flax; the putting these two kinds of plants into sheaves; the carrying to the mill, the threshing, measuring, storing in the granaries; two drawings of large granaries on different plans; the flax carried by asses; a number of other agricultural operations, among them the gathering of the lotus, the culture of the vine; the vintage, its carrying home; two presses, one worked by the hand, the other by mechanism; the putting the wine into bottles or jars, carrying it to the cellar, &c. &c. Horticulture; the gathering of figs, &c.; The whole with explanatory hieroglyphic inscriptions; also, the intendant of the country-house, the secretaries, &c.—*Le Globe.*

New Zealand.—We lately (Vol. VI. p. 486.) made some observations on the eligibility of this island as a fitter place for emigration than Sydney or the Swan River; and we are happy to find our observations more than confirmed by a paper in the *Morning Chronicle* of October 23, 1830. New Zealand is there stated to be more an agricultural than a pastoral country. The climate is said to be temperate, the surface hilly, with numerous abrupt ridges abounding in fine timber, and a series of the richest valleys, producing Indian corn and wheat, without a risk of failure from either cold or hot blighting winds. Potatoes, carrots, turnips, and every other species of culinary vegetable, the missionaries found to grow as luxuriantly as in Britain. "The Church of England missionaries, all men of liberal education, speak in raptures of the scenery, the climate, the productiveness of the soil, and of the mental capabilities of its rude inhabitants;" and they declare that all that is wanting to render the island highly civilized and flourishing, is the establishment of a regular government by some civilised power, and the diffusion of education. (See the excellent article in the *Chronicle* above alluded to, and the work of Mr. Earl, now in course of publication.)—*Louden.*

The Blight.—Fruit Trees sent to Van Dieman's Land.—Among the goods brought out by the Wave, for the Van Dieman's Land Company, we have much pleasure in observing a very excellent assortment of fruit trees of all kinds. Capt. Lister must have taken unwearied pains in attending them during the voyage, as almost every one is alive, with the exception of the strawberry and rasberry bushes, which have entirely perished. We regret, however, to see that the whole of the apple trees are covered with American blight, the insect being already matured and prepared to fly the moment the box is opened. Though this proves that the insect must have been in the ground or round the roots in the first instance, it evidently shows that the close atmosphere which it enjoyed in the pent-up boxes is peculiarly favorable to its propagation: and thus we see that those gardens which are in the lowest and most confined situations, and but little exposed to winds, are most attacked by it.—*Hobart Town Courier*, July 17, 1830.

We find, from advertisements in the same paper, that the average price of young healthy fruit trees, of the ordinary kinds, in Hobart Town, is 5s. each; and that hawthorn berries form an article of exportation. These, deprived of their pulp, sell at ten guineas a bushel.—*Gar. Mag.*

To be able to draw Flowers botanically, and Fruit horticulturally, that is, with the characteristics by which varieties and sub-varieties are distinguished, is one of the most useful accomplishments of young ladies of leisure, living in the country. It is due to Mrs. Withers of Grove Terrace, Lisson Grove, to state that her talents for teaching these objects are of the highest order, as many of the plates in the *Transactions of the Horticultural Society* and the *Pomological Magazine* abundantly show. We have observed, with no small pride and pleasure, that several of our principal nurserymen, not only about London, but in the country, have brought, or are bringing forward their daughters, so as to be competent to make scientific portraits, not only of fruits and flowers, but of trees and shrubs, in their different stages of growth. When once a system of education is formed which shall embrace all modern improvements, and when that system shall be universally applied, the drawing and making portraits of all, or of any objects whatever, will be as general an accomplishment as penmanship is now. To all the mechanical trades, drawing is perhaps of more use than either writing or arithmetic.—It is of immense use to a gardener; and we hope no young reader will neglect its acquirement. He may do it by continually copying the cuts in this Magazine, or Plate 1. of *Illustrations.—Gar. Mag.*

The Botany of various parts of North America being very imperfectly known, we learn with pleasure from Mr. William Christy, junr., that "Dr. Hooker and others are going to subscribe and send out Mr. Drummond to New-Orleans; whence, on the approach of summer, he will ascend the river, and get into the country bordering on Mexico or California, which is expected to prove a most interesting field. Mr. Drummond will send home dried specimens, roots, and seeds, and also birds and insects, to the various subscribers, according to their wishes, and the amount of the sums

they advance, and afterwards collect for sale on his own account." We hope the experiment will prove successful.—*Ib.*

Rouge Plant and Guaco Plant.—Dr. Hamilton has received a letter from Mr. D. Fanning, the proprietor of the Botanic Garden at Caraccas, including some rare seeds from that country, among which was one, a Convólvulus, which furnishes a striking example of the great power of vegetation within the tropics, as Mr. Fanning mentions his having trained it 5000 feet in the space of six months. Some seeds of most beautiful Crotàlaria, and a few seeds of the Rivìna tinctória, or rouge plant, which cannot fail to come into high repute among the fair dames of fashion. It is believed by the secretary to be a nondescript species; and he has, therefore, given it the provisional name of tinctória, from its peculiar properties, as a means of distinguishing it till an opportunity offers of determining it botanically. It is much used as rouge by the ladies of Caraccas, one berry being sufficient for the service of the toilet at one time.—It possesses two qualities which will strongly recommend its use in preference to any of the rouges commonly employed, that of not injuring the natural complexion, and that of not being affected or oblite·ated by perspirati·n, while its color equals that of the finest carmine. From the account given by Mr. Fanning, we should conceive this fine pigment capable of being usefully employed in the arts. A few of the seeds have been given to Mr. Pontey. Dr. Hamilton is promised a supply of twelve bottles of the juice of the Guaco plant, so celebrated as an antidote to the poison of snakes, and an infallible cure for gout, rheumatism, and a multitude of other distressing maladies. The abundance of this supply will enable it to be tried upon a large scale. It may be expected by the first vessel from Laguira that touches at Cowes.

Plymouth Journal Sept. 16.

A Sweet Chesnut of a very superior sort, well deserving the attention of nurserymen as a source of scions for grafting, stands in the garden of Capt. Clemens in the parish of St. Peter's, Jersey. Mr. Donald of the Goldworth nursery, and Mr. Roy of Aberdeen new nursery, expect to have plants for sale in the autumn of 1831.—*Gar. Mag.*

An excellent variety of Cucumber is grown in the forcing-houses at Syon The fruit is long, perfectly smooth, and the leaves extremely large (18 in. across:) they are grown in boxes placed over the back flue of the pine-pits, and the shoots trained under the glass over the path. Mr. Forrest has gathered fruit daily since October last, and will continue to do so, if he chooses, all the year round.—*London.*

Huge Rose-bush.—Mr. Ramsey, gardener, Chancelot, has a gigantic rose-bush in his garden, which excites the admiration of all visitors. It is nearly 10 feet in height, and measures fully 30 feet in circumference. Mr. Ramsay has it very tastefully dressed and trained; and it is considered by horticulturists not only the largest, but among the handsomest rose-bushes in the kingdom.—*Scotsman.*

Forest Trees in France.—Vitry may be described as a village of nurserymen; a circumstance sufficiently indicated by the following signs to the public-houses there: *Au rendezvous des pépiniéristes; Au bon pépiniériste; Café des pépiniéristes*, &c. It is estimated that there are about 400 growers here and at Choisy, the adjoining village; each of whom cultivates his own property, and grows trees, alternately with corn, forage crops, and culinary vegetables, in the open or enclosed fields. The quantity of ground covered at one time by trees is supposed to be nearly 4000 acres. The principal demand for forest trees in France is for lining the public roads; and they are, therefore, allowed to grow till they attain considerable size, without much trouble being taken in transplanting them, as in Holland. By far the greater number of the fruit trees grown here are exposed for sale in the streets of Paris; and the same may be said of the shrubs and roses, of which only the more common sorts are dealt in by the nurserymen of Vitry.—*Loudon's Tour in France.*

Cutting off limbs of Trees when planted.—Louden, in his tour in France, says he observed that forest trees of 20 to 25 feet high were, when removed to their final destination, headed down to 10 or 12 feet, "We believe," he says, "from observation and experience, that where the roots have not been previously prepared, the French mode is the best, at least with most deciduous trees. If, in such a case, a tree could be planted with all its branches for one year, and pruned in the second year, that would, doubtless, be still better; but the objection lies in the expense of staking. The first year, the whole energies of a tree planted with all its branches would be directed to the formation of roots for the support of the head; these branches being removed in the beginning of the second year, the concentrated energies of the roots, in which the power of the tree chiefly resides, would, be directed to the production of one main shoot and some subordinate ones. In the autumn of 1824, we planted, in our grass-plot at Bayswater, two plants of deciduous cypress, purchased from Lee's nursery: they were without balls, and each about five feet high.—One of them, in the course of the winter, was accidentally broken over within a foot of the surface; but the other remained uninjured, and was not divested of any of its shoots. The headed-down tree, next spring, made a vigorous shoot, which threw out side shoots; the other made only very short shoots. Both trees went on growing at the same relative rate for about four years; and they have been since, and are now, as near as possible, of the same size in every respect, and of the same vigour in their annual growths."

There have been, in the New-York Farmer, some strictures on the "bare poles" around Washington Square, and other statements at variance with the above sentiments.

Extraordinary utility of the Nettle.—In the weekly newspaper of the Bavarian Agricultural Society, the nettle is said to have the following properties: 1. Eaten in salad it cures consumption; 2. It fattens horned cattle whether eaten green or dried; 3. Experience has shown that it not only fattens calves but improves their breed; 4. It is an antidote to most maladies; 5. Sheep which eat it bring forth healthy vigorous lambs; 6. It promotes the laying of eggs in hens; 7. It improves the fat of pigs; 8. The seeds mixed with oats are excellent for horses; 9. It grows all the year round even in the coldest weather; 10. The fibres of the stem make an excellent hemp.

It is certain the nettle is much valued in Holland

where its young shoots are used as a pot herb; its roots for dying yellow; where the horse dealers give the seeds to horses, to make them brisk and give them a fine skin; and where considerable portions of fields are planted with it, and mown five or six times a year as green food.—*Anon.*

Curious experiments on the retardation and multiplication of Wheat.—On the 8th of August 1824, a single plant of wheat was taken, which had been sown in the June preceding, and divided into 18 parts, and put into the ground, where it remained till the latter end of September, when they were again taken up and subdivided into 67 parts of roots, all of which were carefully transplanted, and allowed to remain till the end of March following, when they were a third time taken up and separated into 490 parts, and again replaced in the earth, and allowed to perfect themselves and ripen, when the little harvest was reaped. The one single grain of wheat, by this process, was found to have produced 21,109 ears, containing 570,000 grains, measuring 3 pecks and 3 quarts. The multiplication of wheat by off-setts and suckers at the collar of the root, is well known, and fields that are apparently bare in the spring, frequently increase by this means to a very handsome crop, and the retarding of vegetation can be carried to almost any extent, by constant transplanting. Flowering plants and shrubs, by this means, may have their periods materially changed particularly the herbaceous annuals.—*Hamp. Essays,*

Cheap Paint.—Mr. John C. Pendegrast, painter, of this village, has discovered a material for mixing paints, which promises to be of immense value. It incorporates completely with Linseed Oil, and may be used as a substitute for that costly article. The cost of the new material is comparatively trifling, and abounds in almost every part of the U. States. Paints are mixed and prepared with it, in the same manner as with linseed oil and spirits of turpentine. The most satisfactory experiments have been made. It produces a smoother and harder surface, answers any color, and is equally impervious to water. The inventor has obtained a patent, and has already disposed of rights to several of the first establishment in this State. He also introduced his paint in Wilmington, and had the pleasure of seeing it used on the public buildings in that city.—*Wayne Sentinel.*

Specimens of the above can be seen at 109 Beekman Sreet, New-York.

Early products.—We are informed by the Troy Sentinel that at a meeting on Tuesday of the Inspecting Committee of the Horticultural Society, at the Rensselaer House, Mr. David C. Norton of Lansingburgh, presented two bunches of radishes, the growth of the present season, one of which, containing eight, weighed fourteen ounces. The other contained ten, and weighed sixteen ounces. He also presented a fine bunch of early Asparagus.

Change of Color in the plumage of Birds from Fear.—The following facts are related by Mr. Young, in the Edinburgh Geographical Journal.—A blackbird had been surprised in a cage by a cat. When it was relieved, it was found lying on its back. Its feathers fell off and were renewed, but the new ones were perfectly white.—A grey linnet happened to raise its feathers at a man who was drunk: he instantly tore the creature from its cage, and plucked off all its feathers.—The poor animal survived the accident (the outrage we would rather say) and had its feathers replaced, but they were also white.

Propagation of Grape Vines.—The enterprize and experience of Mr. Longworth, are worthy of notice. He has a variety of vines which he raised from the seed, producing different varieties of grapes, which bid fair to be excellent wine grapes. His mode of propagating the vine on the wild stock, has in no instance failed, and merits description. Late in the fall he selects a wild vine, about the size of a walking stick—cuts it about three feet from the ground, and digs it up with as much root as he conveniently can, and transfers it to a hole, in which are mingled, fine manure and light rich soil; thus the root is placed until March.—He then cuts it close to the ground, and inserts neatly the grape scion, in the same manner in which an apple tree is grafted. He then applies a paste made of clay and fine dry horse dung,—then scrapes the loose rich earth around into the top of the graft. So luxuriant is the growth, that it is necessary, the first season, to protect them from the severity of the frost, by covering them with earth. They bear plentifully the second year, and are more hardy and fruitful than if raised from cuttings. Next season, we may expect to see Mr. Longworth in our market, with grapes worth looking at, worth buying, and worth eating.—*Zanesville Gazette.*

Madder, Barilla and Woad.—The Pennsylvania Horticultural Society has issued circulars, requesting information relative to the culture, of these plants, "to the extent to which they are raised or imported into this country,—to the preparation which they undergo, to fit them for commerce—to the fluctuations which have been observed in their abundance, and price in our markets—to their adaptation to the soil and climate of this country—to the diversities observed in the qualities of merchantable madder and barilla, and to the causes which are supposed to produce these diversities, in a word to every point which can throw light upon this subject." We are not aware that either of these plants have been cultivated in this State, with a view to profit,—not that they would not flourish among us, but we possessed other crops which were more profitable. The time, however, is rapidly approaching, when our crops must be more diversified, and some of these may be hereafter, if not now objects of culture for us. We therefore request such of our readers as may possess any information relative to these plants, to communicate it for publication, for we are aware that madder (and we believe also woad) has been grown in small quantities, by several of our planters, as objects of curiosity.—*Southern Agriculturist.*

A method of accelerating the maturity of Melons.—This consists in spreading under and around the melons, a bed of pulverized charcoal two inches deep. Lampodias, at Freiberg, attempted this experiment in 1813, and he succeeded in ripening melons in a box filled with earth and not covered during the cold summer of that year. The surface of the charcoal attained a temperature at noon of from 115 to 188 degrees, while elsewhere it was only from 85 to 88 degrees. *American Farmer.*

Method of obtaining the Skeletons of Fish.—Mr. Bluell's, plan is to suspend a vessel full of water, into which he introduces a number of tadpoles, which de-

vour the flesh without injuring the bones. The tadpoles should be taken as small as possible, at the end of four and twenty hours the skeleton will be cleaned, but the water must be renewed several times.

Silkworms.—Before the expiration of a fortnight the season will commence of the hatching of the Bombyx, when it begins its labors to produce the silk crop—a crop which it will itself compose, spin, and leave entire and ready for our manipulation. We see every day, every hour, the most superb, glossy, light and durable stuffs, fabricated from it, for dress or for ornament, and for which extravagant prices must be returned to the silk culturist and manufacturer;—the toil to produce the crop is light and interesting, the value of the article, sure and merchantable.

To any person already acquainted with silkworm-rearing, or to any lady desirous of acquiring practical instruction in that branch of domestic economy, Dr. F Pascalis will present, according to desire, from 100 to 500 silkworms of the best kinds, from the South of France, provided said person or lady will assure him that they can provide as much WHITE MULBERRY leaves as are required for that number. This all important fodder is very scarce on the island of New York, although it might be had from Hoboken, New Jersey, Staten Island, and Long Island. Less than 100 pounds is sufficient to supply a regular nursery of a thousand silkworms from the hatching to the spining; the quantity daily used should be progressively increased, and be more and more punctually provided at each advanced period of moulting.

Liberty Street, No. 71. *April 20th*, 1831.

Bee-Hives.—Mr. Abijah Alley, of this city has exhibited a modle of a bee-house, which appears to us to combine many conveniences, and to render the care of bees much less troublesome than the usual mode of keeping them. Mr. Owen's system of communities in parallellograms, is, with some modifications, adopted, for the plan; which is to congregate a large number of families, or swarms of bees, into one building, which is so constructed that the owner of it may, at his pleasure, go in to the rear of the hives, and expel the bees from one of four rooms or divisions, into which each hive is separated, and take from it one fourth (or half, as the case may require,) of honey laid up for their winter stores. The model will be exhibited at Mr. Parkhurst's agricultural warehouse, on Lower-market street, and the inventor will also exhibit it at the meeting of the society, to-morrow. We subjoin his own remarks on the subject.—*Western Tiller.*

New Plan of sticking Peas.—Procure a number of slim poles, about 5 ft. long (the top of larch firs, if they can be found,) and drive them into the ground at the distance of three or four yards. Pass a small line along the poles, taking a turn on each, within three inches of the ground; raise the next turn three inches, and so on in succession, till you have attained the common height to which the peas rise. The tendrils of the peas seize and twist round these lines, and they are supported in a more attractive and a more profitable manner than they are by the common stakes. When spread regularly along the lines, they have a fine circulation of air, more advantage from sunshine, and pods can be pulled at all times without tossing and injuring the straw; and as the sparrows have no twigs to alight on, the portion of the crop which they destroy and devour is saved. This mode is so cheap, simple, and possesses so many advantages, that it is likely to be soon generally adopted.—*Scotsman*

Exportation of Cattle.—During the first three months of the present year, there have been exported from New Haven to the West India Islands, nearly one thousand head of cattle, horses and mules, amounting in value to more than fifty thousand dollars; being a much greater number and amount than was ever before exported from this place in the same length of time.

Sale of Public Lands.—The following statement extracted from the Report of the Commissioner of the General Land Office, exhibits the total sales of lands in each state and territory in the Valley of the Mississippi, (excepting the western parts of Virginia and Pennsylvania, Kentucky, and Tennessee,) during nine years and a half—that is, from the 1st of July, 1820, to the 1st of December, 1829. This document must prove interesting to every citizen of our country, as it goes to show the immense purchases of its lands, the consequent increase and spread of its population, and its additional strength and improvements.

	Acres.	100ths.
In Ohio.	1,405,267	73
In Indiana	2,169,149	70
In Illinois	667,200	44
In Missouri	923,506	32
In Alabama	1,459,054	78
In Mississippi	544,523	82
In Louisiana.	158,839	35
In Michigan	443,209	23
In Arkansas	59,899	36
In Florida	336,567	50

The above statement shows not only the rapid settlement of the West during the last 10 or 11 years, but also the relative size, if I may so express myself, of the column of emigration to each of the states which are named.

Bell's Reaping Machine.—Sir, we have some time ago finished our third campaign with the reaping machine. This season, like the former, the elements have been against us. Lodged and broken down crops, together with fields completely saturated with rain, are what we have had this year to contend with; and these are obstacles which, of all others, are the most to be dreaded in the successful application of a reaping machine. Notwithstanding these difficulties, however, it gives me pleasure to be able to give you a favorable account of our operations; at least as favorable a one as could have been expected, all things considered.

I believe I have mentioned to you in some of my former letters that my father's farm is very small; in fact, it is too small for a reaping machine. This year he had only twenty-five acres under crop; twenty-four of which were cut by the machine in forty-seven hours and a half. This, you will observe, was the actual time that the machine was working, though we never had occasion to work longer in one day than five or six hours; that is, as near as may be, half an acre in the hour. My brother had 60 acres under crop; ten of which were cut before he got his machine, and 10 were in a field newly brought under the plough, and, of course, could not be cut by a machine. The other forty he cut by the machine in 74 hours; that is, a little more than half an acre in the hour. The

crops cut, both on my father's and brother's farms, were wheat, oats, and barley; and they were mostly cut by the machine working in one direction. Both machines, however, cut partly both ways, when the corn and wind would answer; when cutting both ways, about an acre in the hour was always cut. When the machine was working in one direction, seven or eight people were necessary to collect, behind, and stook: when it was working both ways, of course nearly double that number were required. We find by experience, that the machine will cut both ways when the corn is standing upright, or nearly so; and also when it is laid nearly parallel to the furrows, or when it is completely broken down, so that one could not say which way it is laid. The machine works to great advantage amongst the latter description of corn; as it is difficult to cut it well in the common way, and the machine actually evens it during the process, so that it is evener laid down in the *bout* than it stands in the field.—*Louden.*

Inspection of Grain, in the city of New-York, for the year 1830, from the Inspector's report.

	What qr. of the yr.	No. bu. pr. qr.	Av'ge price.	No. bu. pr. yr.	Av'ge price.	Am't pr. year.
Wheat.	1st qr.	51699	$0 95			
	2d qr.	116829	1 04			
	3d qr.	432784	1 03			
	4thqr.	299130	1 03	900442	$1 03	927,105 88
Rye.	1st qr.	45259	$0 64			
	2d qr.	108737	0 63			
	3d qr.	92541	0 66			
	4thqr.	181483	0 68	428020	$0 66	281,084 46
Corn.	1st qr.	189550	$0 46			
	2d qr.	411206	0 50			
	3d qr.	297572	0 55			
	4thqr.	201755	0 58	1100079	$0 52	176,446 60
Oats.	1st qr.	95597	$0 34			
	2d qr.	224084	0 36			
	3d qr.	234979	0 35			
	4thqr.	243474	0 34	798134	$0 35	280,638 50
Barley.	1st qr.	6450	$0 68			
	2d qr.	1010	0 68			
	3d qr.	20385	0 58			
	4thqr.	96818	0 66	124663	$0 65	$80,939 18

Total number of bushels, 3351338
Total of grain, $2146214 62

ISAAC WARREN, City Inspector.
New-York, March 5, 1831.

Fine Cider.—We have received a box of bottled cider sent and manufactured by Messrs. S. & F. Lyon of Sawpitts, N. Y. It is from the pure juice of the crab apple, without the addition of any spirits, water, or saccharine substances. It is of a light color, very clear, and mild, and pleasanter to the taste than the *best wines* we have often met. We shall present two or three bottles of it to the Horticultural Society, at the next meeting, and when a gentleman of Mount Pleasant or any other place, whom the Messrs. Lyon invite to a comparison, sends us some of his, we will present the rest. The Messrs. L. state that they have three hogsheads of the same quality.

Flour trade of the United States.—Inspection of Wheat and Rye Flour, and Corn Meal, in the principal parts of the United States, for the year 1830, including the preceding nine years.

Places.	Wheat Flour.	Rye, Flour.	Corn Meal.	
	brls.	brls.	hhds.	brls.
Albany, New-York	43215			
New-York	827370	15191	10316	9663
Philadelphia	473876	21712	7498	10949
Baltimore	997804	4436	558	5458
Georgetown, D. C.	139713			
Alexandria, D. C.	187432	12		
Fredericksburg, Va.	79336			
Falmouth, Va.	46406			
Richmond, Va.	251024			
Petersburg, &c.	72000			
N. Orleans, yr. end'g. Sept. 30.	133700			
Total, 1830	2851876	41351	18372	35070
" 1829	2255132	77945	17891	51666
" 1828	2245257	55239	19178	78958
" 1827	2061459	34487	16869	51192
" 1826	2231558	27282	18619	36979
" 1825	1882611	57419	14781	51297
" 1824	1714410	68380	17192	70415
" 1823	1557724	75620	14705	36863
" 1822	1599973	59363	15157	32274
" 1821	1707350	43976	17449	40693

Albany Horticultural Society.—First exhibiton of the Society for the present year, April 19, 1831.

Judge Buel presented 3 bunches pie plant, Rheum tartarum, foliage 2 to 2½ feet in length.

Spencer Stafford, 1 fine bunch asparagus.

George Wilcox, 2 fine bunches radishes; 2 heads celery

D. B. Slingerland, 3 heads celery, and a splendid collection of flowers, consisting of a variety of hyacinth, narcissus, jonquils, double violets, Persian and dwarf violets.

Thomas Churnsides, 2 fine bunches radishes; 1 fine bunch asparagus; 2 bunches celery.

Stated premiums were awarded Spencer Stafford, George Wilcox, D. B. Slingerland, and Thomas Churnsides.

Honorary premium to Judge Buel for rheum tartarum.—*Albany Argus.*

Yellows in Peach Trees—Since writing the article on *Peach trees*, published in the *N. Y. Farmer*, page 46, I have been reminded of one small tree which has symptoms of *the yellows*. It stands 40 feet from one of those which died with that malady, and I think it probable that it has been infected by the *pollen*.

I observed *two* typographical errors in that article which mar the sense, and fail to give the meaning. p. 46, col. 2, line 12 from the bottom for *more* read *none*. p. 47, col. 1, line 18 from the top for *before* read *below*.

D. T.

New-York Cattle Market, Monday April 25.—About 300 head of cattle—all sold at an average of $8 per hundred. No swine, and not more than 40 to 50 sheep. Very few milch cows, inferior, from $25 to $30. [Reported for the N. Y. Farmer by D. DREW.]

[We copy the following not so much to show what has been, but what may and will be done. Improvements and changes will be far greater in the fifty years to come, than in the half century past.]

ART. LXXXIV.--*Ignorance of the Arts and Sciences at the close of our Revolution. Unprecedented Improvements since.*

For the instruction of those who were too young to observe, and of those whose recollection is obliterated by the glare of an immense progress in all the arts, sciences, agriculture, navigation, commerce, &c. since our revolution, as well as to encourage other States, just emancipated from foreign bondage, and who are experimenting on the effects of freedom and equality, it may be necessary to give a short sketch of our situation, as regarded the arts, sciences, &c. &c. immediately, and for some considerable time after our revolution. Every instrument of iron, for use within or without the house, from a hod nail to an anchor, was imported from Britain. All species of clothing, from head to foot, bed furniture, pewter, glass, earthen-ware, carriages, saddles, harness, &c. &c., were all from Britain, and we used to import into Virginia hundreds of bundles of brush handles and mop sticks made in London, from Norway pine, every year.—Most articles of German and other continental manufactures, came to us through Britain, not having the correspondence or credit to import them direct from the place where they were made. Our agriculture consisted in cutting down the trees, impoverishing the land with four or five crops, and leaving it as an old field, to enclose more of the forest. Even our garden vegetables were exceedingly scarce, particularly in the slave States. Our navigation consisted of a few sloops and schooners. On the first anniversary of our independence at Philadelphia, the largest vessel they could find to hoist the flag upon, was a topsail yard arm schooner; and the first vessel we sent to China, was a sloop of about 100 tons burthen. Most of the trade of the southern states was carried on by foreign bottoms, mostly British, and our merchants consisted of those who sold goods by the piece, and those who sold by the yard. Few ran sea risks, but those who carried on the trade of the southern states. Our carpenters to the eastward were without work, and a subscription was raised to build ships to employ them. No periodical works, either on literature or science, were published; our books were mostly imported from Britain, and newspapers were almost the only publications that issued from our presses. There was not a paved road or a canal, from one end of the continent to the other for long after our revolution. The Richmond canal, and Lancaster turnpike were amongst the first, neither of which paid any dividend for a great many years; so little was the trade that passed through them.

When I was a merchant, having business that forced me to visit Virginia twice a year, I visited Richmond, in company with Dr. Scandala, an Italian gentleman; seeing Mr. Latrobe, at the hotel, I inquired who he was, but was warned by my friends not to make acquaintance with him, as he was a crazy man who gathered weeds and stones in the woods. On making his acquaintance, I found him a man of merit, who did more in less time than I had known done by any one before; but his talents at that time, were lost at Richmond. He next year visited Philadelphia, and I requested him to draw a handsome edifice and put it in perspective. He put on paper what was afterwards the marble edifice of the bank of P———: after it had remained some time over my chimney piece, I sent it to their discount room, where it remained for two or three years; until they thought of erecting such a building. The directors then requested me to send for Latrobe. He came and gave the dimensions of every marble slab that was to be put into the building, to the marble cutters, which was new to the stone masons and against which they complained much, and also said the lime was rotten, and would not hold. There was no wood or any thing combustible in the building; all was arched. To groin the arches, the bricks were to be cut; the brick-layers stopped work declaring it was impossible. Latrobe took a trowel, cut the bricks and laid them.

Had he not been a practical, as well as a theoretical architect, the building would have stopped from the ignorance of the workmen. At this time he gave three different plans for bringing the water from the Schuylkill into Philadelphia; the town council chose the worst of these because it was the cheapest; which has been since changed. When making my geological map, as I was breaking a rock on a road side in Virginia, a traveller who observed me, stopped at a respectable distance and went out of his road to a tavern, to tell them there was a mad man on the road, breaking the rocks with a large sledge hammer. When I got to the tavern no one would take care of my horse, and made their escape when I went into the house, nor was I able to explain my object in breaking the rocks to their comprehension, so that I left them under the idea that I was mad, but not violently so, excepting when I met with rocks. The only cabinet of mineralogy in Philadelphia, at that time, was a very small one which Dr. Seybert brought from Gottingen, with specimens about the size of a thumb. In 1805 I enabled a young Frenchman, (Mr. Godon) to go from Paris to the United States. He delivered in Boston and Philadelphia, the first lectures that were given on mineralogy in any part of the Union, excepting a little botany and zoology, understood by a very few, all the other branches of Natural Sciences were almost as well understood by our Indians, as by the civilized inhabitants of our states. The charters of all our colleges being copies of Oxford, had no chair for the exact sciences of chemistry, natural history, &c. The first coal pits that were wrought, were above Richmond in Virginia: and about thirty years ago, a collier from Newcastle, in England, taught them how to clear the mine of foul air, by a fire at the mouth of the shaft

For the four years after the revolution, before the people were burdened with federal expenses, the states under their economical governments and free trade, recovered the losses and destruction of the revolutionary war, so as to lay a foundation for an unprecedented prosperity in the annals of mankind. The fruits of freedom augmented the resources of the country far beyond any thing experienced before. The rapid and surprising increase of the population, the equally great augmentation of their agricultural, manufacturing, and every other species of production, with the increase of navigation and commerce, astonished the old world. The gigantic strides made in the useful arts and sciences; the immense extension of their roads and canals; with their great improvements in river navigation by

steam boats, far exceeds what the most fertile imagination could have foreseen. The last forty years experience of the United States, places freedom in a superior point of view to any thing that could be imagined, and the rapidity of their progress compared with the thing that preceded it, staggers belief.—*Disseminator.*

ART. LXXXV.—*An Account of some new and little known Species of the Genus* Ribes, *Currant.* By MR. DAVID DOUGLAS, F. L. S. [*Extracted from the Transactions of the Horticultural Society of London.*]

Many species of Ribes are indigenous both to North and South America, and in their native state produce excellent fruit, but scarcely any when removed to another climate.

Few shrubs are more ornamental than Ribes sanguìneum; but its fruit in a natural state is of so very musky and unpleasant a flavor, that even the birds do not use it. The plant forms an erect branching bush, 6 ft. in height, with red smooth branches, leaves very like those of the black currant, but rather smaller, and showy pink or crimson flowers, succeeded by black berries. Its native habitat is in rocky situations, or on the shingly shores of streams in partially shaded places, never extending beyond the influence of the sea-breeze, and from 38° to 40°, and as high as 52° N. lat. on the coast of North-west America. It was discovered by Archibald Menzies, Esq., so long ago as 1787, during his first voyage round the world, but only introduced by Mr. Douglas to the Horticultural Society in 1826; and the plants raised from seed blossomed for the first time in April, 1828. This is a truly beautiful shrub, of the easiest possible culture and propagation. Blossoming early, and its flowers being so very showy, it ought to be in every shrubbery.

R. viscosíssimum, *Pursh.* A large branching bush, six to eight feet high, with perfectly smooth dark-red bark. Faint yellow or whitish flowers, and dark brown or black berries.

"It is an inhabitant only of the subalpine range of the highest mountains, abounding in dry fissures of limestone rocks, flowering in May, and ripening its fruit in August. On the hills around the Kettle Falls on the Columbia River, in 48° 37′ 40″ N. latitude, 118° W. longitude, at an elevation of 8000 ft. above the level of the sea, it forms a principal part of the brushwood, and is plentiful on the western declivities of the Rocky Mountains, between the parallel of 46° and 52° N. latitude. This magnificent species ought to have a place in the gardens of the curious, were it only on account of its dissimilarity to any of the genus."

Seeds brought to England by Mr. Douglas in October, 1827; and the plants raised and flowered in the garden of the Horticultural Society in 1828.

R. cèreum. A more humble bush than either of the two former, and of a slender habit, but still attaining the height of five or six feet, with white smooth bark on the old branches, and the young shoots covered with a brown viscid scentless glutinous substance. Flowers white, and berries red. Hardy, and of easy culture, but not very beautiful. Seeds received in October, 1826; the plants raised from which flowered in April, 1828.

"On dry, exposed, decayed granite rocks or schist, throughout the chain of the river Columbia, from the Great Falls 45° 46′ 17″ N. lat. to the source of that stream in the Rocky Mountains, 52° 7′ 9″ This is a common shrub, flowering in March and April, and ripening its fruit in June."

R. petiolàre. Resembles R. nìgrum, particularly in its fruit. Seeds brought to the Horticultural Society in October, 1827; but they had not flowered when Mr. Douglas composed his paper in April, 1829. We understand they have since flowered, and that the color is not conspicuous.

"In deposits of decayed vegetable soil, washed down by the torrents from higher altitudes of the mountains, among coppice wood on the western base of the Rocky Mountains, from the 48 to the 52° N. latitude, this species is frequently met with; and it is equally common on similar altitudes and situations in the high mountains of North-west America."

R. divaricàtum. A robust bush of erect habit, six or eight feet high, with whitish flowers, and black berries: pleasant to the taste. Flowered in the garden of the Horticultural Society in April, 1828. "A common bush on the banks of streams near Indian villages, on the north-west coast of America, from the 45 to the 52° N. latitude."

R. irrìgnum. A tall strong species, sometimes ten feet high, with white bark, cordate leaves, ball-shaped flowers [color ?] and spherical berries half an inch in diameter [color ?] smooth, juicy, with a very pleasant flavor: "A constant inhabitant of moist mountain rocks, near springs and streams, flowering in May and ripening its fruit in July. On the Blue Mountains in 46° 33′ it is very common; also on hills on the banks of Spokan River. Of all the species which came under my observation during my journeys in America, this is the finest in the flavor of its berries, as well as in their size. It has not yet flowered in the Society's garden."

R. echinàtum. A slender reclining prickly bush, with brownish yellow flowers, and black hairy berries, small, but of a pleasant taste. "A common trailing shrub, on dry shelving rocky places on the mountains, at the Grand Rapids on the Columbia, and on the mountains of Northern California; never frequenting edges of the rills or swampy ground in shady woods among Cárices, as R. lacustre does. This species flowered for the first time, last April, in the Society's garden.

"Several undescribed species, from the same country as those above noticed, are in a growing state in the Society's garden; but, as no native dried specimens of these exist in this country, they cannot for the present be here noticed. Many other important additions of the genus *Ribes* yet remain to be introduced to our gardens from America, among which two species of unrivalled beauty adorn the untrodden wilds of Northern California, which we hope, ere many years, to see as common in the gardens of England as R. sanguìneum now is; and although as fruits they are precisely alike, being peculiarly disagreeable, the splendor of their blossoms and varied foliage may procure for them a distinguished place in any garden."

By frequent reading and meditation on rural subjects, many improvements on his farm, will be suggested to the farmer.

ART. LXXXVI.—*Of the Choice of Live Stock for the Purposes of Breeding or Feeding.*

The most desirable properties of live stock destined for food are considered in the Code of Agriculture, in respect to size, form, a tendency to grow, early maturity, hardiness of constitution, prolific properties, quality of flesh, a disposition to fatten, and lightness of offal.

Before the improvements introduced by Bakewell, the value of an animal was entirely judged of by its bulk; and if a great size could be obtained, more regard was paied to the price the animal ultimately fetched, than to the cost of its food. Of late, since breeders began to calculate with more precision, small or moderate-sized animals have been generally preferred, for the following reasons:—

Small-sized animals are more easily kept, they thrive on shorter herbage, they collect food where a large animal could hardly exist, and thence are more profitable. Their meat is finer grained, produces richer gravy, has often a superior flavor, and is commonly more nicely marbled, or veined with fat, especially when they have been fed for two years. Large animals are not so well calculated for general consumption as the moderate-sized, particularly in hot weather; large animals poach pastures more than small ones; they are not so active, require more rest, collect their food with more labor, and will only consume the nicer and more delicate sorts of plants. Smalls cows of the true dairy breeds give proportionably more milk than large ones. Small cattle may be fattened solely on grass of even moderate quality; whereas the large require the richest pastures, or to be stall-fed, the expense of which exhausts the profit of the farmer. It is much easier to procure well shaped and kindly feeding stock of a small size than of a large one. Small sized cattle may be kept by many persons who cannot afford either to purchase or to maintain large ones, and by whom the loss, if any accident should happen to them, can be more easily borne. The small sized sell better; for a butcher, from a conviction that, in proportion to their respective dimensions, there is a greater superficies of valuable parts in a small than in a large animal, will give more money for two oxen of twelve stone each per quarter, than for one of twenty-four stone,

In favor of the large-sized, it is, on the other hand, contended, that without debating whether from their birth till they are slaughtered the large or the small one eats most for its size, yet on the whole the large one will pay the grazier or the farmer who fattens him as well for its food; that though some large oxen are coarse-grained, yet where attention is paid to the breed (as is the case with the Herefordshire,) the large ox is as delicate food as the small one; that if the small-sized are better calculated for the consumption of private families, of villages, or of small towns, yet that large cattle are fitter for the markets of great towns, and in particular of the metropolis; that were the flesh of the small-sized ox better when fresh, yet the meat of the large-sized is unquestionably more calculated for salting, a most essential object in maritime and commercial country, for the thicker the beef the better it will retain its juices when salted, and the fitter it is for long voyages; that the hide of the large ox is of very great consequence in various manufactures; that large stock are in general distinguished by a greater quietness of disposition; that where the pastures are good, cattle and sheep will increase in size, without any particular attention on the part of the breeder; large animals are therefore naturally the proper stock for such pastures; that the art of fattening cattle, and even sheep, with oil-cake, being much improved and extended, the advantage of that practice would be of less consequence unless large oxen were bred, as small oxen can be fattened with grass and turnips, as well as oil-cake; and, lastly, that large oxen are better calculated for working than small ones, two large oxen being equal to four small ones in the plough or the cart.

Such are the arguments generally made use of on both sides of the question; from which it appears that much must depend upon pastures, taste, mode of consumption, markets, &c. and that both sides have their advantages. The intelligent breeder, however, (unless his pastures are of a nature peculiarly forcing,) will naturally prefer a moderate size in the stock he rears. Davis, of Longleat, one of the ablest agriculturists England has produced, has given some useful observations on the subject of size. He laments that the attempts which have been made to improve the breeds of cows, horses, and sheep, have proceeded too much upon the principle of enlarging the size of the animal; whereas, in general, the only real improvement has been made in the pig, and that was by reducing its size, and introducing a kind that will live hardier, and come to greater perfection at an earlier age.

Though it is extremely desirable to bring the shape of cattle to as much perfection as possible, yet profit and utility ought not to be sacrificed for mere beauty which may please the eye but will not fill the pocket, and which, depending much upon caprice, must be often changing. In regard to form, the most experienced breeders seem to concur in the following particulars:—That the form or shape should be compact, so that no part of the animal should be disproportioned to the other parts, and the whole distinguished by a general fulness and rotundity of shape: that the chest should be broad, for no animal whose chest is narrow can easily be made fat; that the carcase should be deep and straight; that the belly should be of a moderate size; for when it is more capacious than common in young animals it shows a diseased state, and in older ones it is considered that the animal will not return in flesh, in milk, or in labor, the value of the extra quantity of fruit which it consumes; that the legs should be short, for the long-limbed individuals of the same family or race are found to be the least hardy, and the most difficult to rear or fatten; and that the head, the bones, and other parts of inferior value, should be as small as is consistent with strength, and with the other properties which the animal ought to possess. In animals bred for the shambles, the form must likewise be such as to contain the greatest possible proportion of the finer compared with the coarser and less valuable parts of the animal. This, by selection, may be attained, and thus the wishes of the consumer may be gratified. As the broad loins and full hips, which are considered a point of excellence in particular breeds, it is evident that the old narrow and thin make, required improvement; but the alteration is now carried to a faulty excess, and often occasions great difficulty and danger in calving.

The form of animals has fortunately attracted the attention of an eminent surgeon, Henry Cline, Esq. of London, who asserts that the external form is only an indication of the internal structure; and that the

lungs of an animal is the first object to be attended to; for on their size and soundness the health and strength of the animal principally depend; that the indications of the size of the lungs are the form and size of the chest, and its breadth in particular; that the head should be small, as by this the birth is facilitated; as it affords other advantages in feeding, &c. and as it generally indicates the animal is of a good breed; that the length of the neck should be in proportion to the size of the animal, that it may collect its food with ease; and that the muscles and tendons should be large, by which the animal is enabled to travel with greater facility. It was formerly the practice to estimate the value of animals by the size of their bones. A large bone was considered to be a great merit; and a fine-boned animal always implied great size. It is now known that this doctrine was carried too far. The strength of the animal does not depend upon the bones, but on the muscles; and when the bones are disproportionately large, it indicates, in Cline's opinion, an imperfection in the organs of nutrition. Bakewell strongly insisted on the advantage of small bone; and the celebrated John Hunter declared that small bones were generally attended with corpulence in all the various subjects he had an opportunity of examining. A small bone, however, being heavier and more substantial, requires as much nourishment as a hollow one with a larger circumference.

Among the *qualities* for which thorough-bred cattle and sheep are distinguished, that of being good growers, and having a good length of frame, is not the least essential. The meaning of which is, that the animal should not only be of a strong and healthy constitution, but speedily grow to a proper size. As specimens of rapid growth, a steer of three years old, when well fed, will weigh from 80 to 90 or 100 stone, 14 lb. to the stone; and a two-year old Leicester wedder, from 25 to 28 lb. per quarter, immediately after his second fleece is taken from him. Animals having the property of growing, are usually straight in their back and belly; their shoulders well thrown back, and their belly rather light than otherwise. At the same time, a gauntness and paucity of intestines should be guarded against, as a most material defect, indicating a very unthrifty animal. Being too light of bone, as it is termed, is also a great fault. A good grower, or hardy animal, has always a middling size bone. A bull distinguished for getting good growers, is inestimable; but one whose progeny takes an unnatural or gigantic size, ought to be avoided.

Arriving soon at perfection, not only in point of growth or size, but in respect of fatness, is a material object to the farmer, as his profit must in a great measure depend upon it. Where animals bred for the carcass merely, become fat at an early age, they not only return sooner the price of their food, with profit to the feeder, but in general also, a greater value for their consumption, than slow-feeding animals. This desirable property greatly depends on a mild and docile disposition; and as this docility of temper is much owing to the manner in which the animal is brought up, attention to inure them early to be familiar, cannot be too much recommended. A tamed breed always has other advantages. It is not so apt to injure fences, or to break into adjacent field; consequently it is less liable to accidents, and can be reared, supported, and fattened at less expense. The property of early maturity, in a populous country, where the consumption of meat is great, is extremely beneficial to the public, as it evidently tends to furnish greater supplies to the market; and this propensity to fatten at an early age, is a sure proof, that an animal will fatten speedily at a later period of his life.

In the wilder and bleaker parts of a country, *the possession of a hardy and healthy constitution*, is a most valuable property in stock. Where the surface is barren, and the climate rigorous, it is essential that the stock bred and maintained there, should be able to endure the severities and vicissitudes of the weather, as well as scarcity of food, hard work, or any other circumstance in its treatment, that might subject a more delicate breed to injury. In this respect, different kinds of stock greatly vary; and it is a matter of much consequence, to select for different situations, cattle with constitutions suitable to the place where they are to be kept. It is a popular belief, that dark colours are indications of hardiness. In mountain breeds of cattle, a rough pile is reckoned a desirable property, more especially when they are to be kept out all winter. It enables them to face the storm, instead of shrinking from it. Hardy breeds are exempted from various diseases, such as having yellow fat, also being black-fleshed, defects so injurious to stock.

Breeds are often distinguished by *the quality of their flesh*. In some kinds it is coarse, hard, and fibrous; in others of a finer grain or texture. In some breeds also, the flavor of the meat is superior; the gravy they produce, instead of being white and insipid, is high colored, well flavoured, and rich; and the fat is intermixed among the fibres of the muscles, giving the meat a streaked, or marbled appearance. Breeds whose flesh has these properties, are peculiarly valuable. Hence two animals of nearly the same degree of fatness and weight, and who could be fed at nearly the same expense to the husbandman, will sell at very different prices, merely from the known character of their meat.

A disposition to fatten is a great object for animals destined for the shambles. Some animals possess this property during the whole progress of their lives, while in others, it only takes place at a more advanced period, when they have attained their full growth, and are furnished at the same time with a suitable supply of food. There are in this respect other distinctions; most sorts of cattle and sheep, which have been bred in hilly countries, will become fat on low land pastures, on which the more refined breeds would barely live; some animals take on fat very quickly, when the proper food has been supplied, and some individuals have been found, even in the same breed, which have, in a given time, consumed the least proportional weight of the same kind of food, yet have become fat at the quickest rate. Even in the human race, with little food, some will grow immoderately corpulent. It is probably from internal conformation, that this property of rapid fattening is derived.

The advantages and disadvantages of fattening cattle and sheep, at least to the extent frequently practised at present, are points that have of late attracted much public attention. But any controversy on that subject can only arise from want of proper discrimination. Fat meat is unquestionably more nourishing than lean, though to digest this oily matter, there are required, on account of the difficult solubility, a good bile, much saliva, and a strong stomach; consequently none, excepting those which are in the most

vigorous state of health, or who are employed in hard labor, can properly digest it. Though fat meat, however, is unfit for general consumption, yet experiments in the art of fattening animals, are likely to promote useful discoveries; and though, in the course of trying a number of experiments, errors and excesses may be committed, yet on the whole, advantage may be derived from the knowledge thus to be obtained. As the bone also gains but little in the fatting animal, and the other offal becomes proportionally less, as the animal becomes more fat, the public has not sustained much loss by over fatted-animals. To kill even hogs till they are thoroughly fat, is exceeding bad economy. An ox or a cow, though the little flesh it has may be of good quality, yet presents, when lean, little but skin and bone; and if slaughtered in that state would neither indemnify the owner for the expense of breeding and maintaining it, nor benefit the public. A coarse and heavy-fleshed ox, which would require a very long time, and much good food to fatten, may be slaughtered with most advantage while rather lean. It is not, however, so much the extent of the fat, as the want of a sufficient quantity of lean flesh, of which the consumer complains; for it cannot be doubted, that the lean flesh of a fat animal is superior in quality, and contains more nourishment, than any other meat.

Handling well. The graziers and butchers in various parts of the kingdom have recourse to the hand, and the feeling of the skin, or cellular membrane, for ascertaining a disposition to fatten; and since Bakewell directed the public attention so much to breeding, that practice has become more generally known. Handling cannot easily be defined, and can only be learnt by experience. The skin and flesh of cattle, when handled, should feel soft to the touch, somewhat resembling that of a mole, but with a little more resistance to the finger. A soft and mellow skin must be more pliable, and more easily streched out, to receive any extraordinary quantity of fat and muscle, than a thick or tough one. The rigid-skinned animal must therefore always be the most difficult to fatten. In a good sheep, the skin is not only soft and mellow, but in some degree elastic. Neither cattle nor sheep can be reckoned good, whatever their shapes may be, unless they are first-rate handlers. The improved short horned breed, besides their mellowness of skin, are likewise distinguished by softness and silkiness of hair. Too great a length, however, ought not to be aimed at, since it is not easy, in that case, to preserve a due proportion in the appearance of the animal, without which it cannot be considered perfect.

Lightness of offal. An animal solely bred for the shambles, should have as little offal, or parts of inferior value, as possible (consistently with the health of the animal,) and consequently a greater proportion of meat applicable as food for man. This, therefore, the skilful farmer will also keep in view in selecting his species of stock. *Ency. of Agri.*

ART. LXXXVII.—*Quality of Wheat raised in Ohio inferior to that of the Genesees Country—Directions for improving it.*

The following letter from Judge Bates, of New York, to C. Deardorff, Esq. of Dover, contains so many useful remarks on a subject, in which the farmers, not only of this country, but throughout the state, are so deeply interested, that we deem its publication absolutely necessary. The opportunities afforded to the writer, as chief engineer on the Ohio Canal, of being acquainted with the nature and character of our soil, added to his own practical experience as an agriculturist, give his observations an additional claim to our attention.—*Tuscarawas Chronicle.*

Rochester, N. Y. Jan. 7, 1831.

Dear Sir,—From the commencement of my acquaintance with your state, I drew an opinion that the interests of Ohio and New York, where intimately connected; and that the course of improvement going on in Ohio, combined with that already completed in New York, would eventually open to the citizens of your state, a market for their surplus produce, which they had previously been almost under the necessity of throwing away. I am now, more than ever, confirmed in that opinion, from the actual experience gained in the year which has but now closed. Your products of wheat, hemp, pork, tobacco, and other articles, find a ready and sure sale, without incurring exorbitant expense. The agriculturist may sow, and from the fertility of your soil, and the geniality of your climate, if he does, he is sure to reap, and not only sure of that, but from the facility of intercourse, he is as sure of realizing a fair value for the result of his labor.

As a proof of this, please to observe, that between two and three hundred thousand bushels of wheat have, during the past season, been purchased in, and shipped from Ohio, and in addition, as much, perhaps as fifty thousand barrels of flour.

It is found to be a fact, that the greater part of the wheat raised in Ohio, is of a quality inferior to that which makes the first rate flour. This is not owing to want of proper virtue in the soil, or to any unfriendly peculiarity of climate; but is attributable to the quality of wheat sowed, and, in many instances, to a practice of permitting the crop to stand in the field till it is dead ripe, before the sickle is applied. Much of the wheat which has lately been grown in your state, and found its way to this market, has been manufactured here, and the flour sent into the New York market, where, I am sorry to say, some of it, under the rigid course of inspection there pursued, has been disgraced.—This is a circumstance which has not happened to the flour manufactured from the wheat grown in this country. Some millers who have manufactured and sent into market the flour of the wheat of your state, indiscriminately, with the flour made from the Genessee wheat, have had the mortification to have their brands condemned, and their high character partially diminished. Others who have taken the precaution to grind and send it unmixed, have only been able to obtain for it the character of second brand superfine.—The inevitable result will be, that your flour must go into the market with a lower character than ours, to wit: second rate superfine. This circumstance, acting on a whole people, and that people so respectable as the enhabitants of Ohio, must be extremely unpleasant, as well as unprofitable. Our best farmers, to enable them to furnish wheat of the finest quality for the mills, are particularly careful in the selection of their seed. They seldom allow themselves, to sow more than two or three years in succession, the same seed, which was raised on the same farm. They change often, and always gain by it, both in weight

measure and quality. Some take the precaution to obtain their seed from a great distance, and always find their account in it. I would suggest the idea of pursuing the same course amongst you; I would even take the liberty to advise you to send to this country for your seed. I have observed that seeds of many kinds are improved by transfer from a northern to a warmer climate, and deteriorated by a contrary course. This may be said to be particularly the case with wheat. The wheat grown in the Genessee, Seneca, and Cayuga counties, has long been acknowledged to possess a decided pre-eminence of character. The change under the present facilities of intercourse, can easily take place; and, should it, you alone would be the gainers. The Genessee wheat, amongst those I have mentioned, bears perhaps the highest character. The kinds most sought after here, as the best, and producing the best flour, are the flint wheat, the bald red chaff wheat with a white berry, the bearded red chaff wheat with a white berry—and perhaps some others. All these kinds can easily be procured. The flour produced from them is of a mellow yellowish hue, and soft feathery feel. That produced by the Ohio wheat, of a bluish white, and somewhat harsh sandy feel, subject to be, under the most careful course of manufacturing, mixed with dark, or black specks.

I have no interest in any mill or establishment for the purchase of wheat or flour; but still feel an anxiety that your productions should be as good and as fair in market as they can possibly be. I have no idea that a change can be brought about instantly; but if only a few would adopt the practice, a short time would show the utility of it, and the community at large be benefited,

Some wheat has been obtained from Geauga, Huron and Seneca counties, which can be called first rate. The grain from any other counties may be made as good. The wheat from Michigan is superior to that from Ohio; their seed was obtained almost wholly from this state.

I am, respectfully, yours, &c.

DAVID S. BATES.

ART. LXXXVIII.—*The Garden of Sceaux, extracted from Notes and Reflections made during a Tour through part of France and Germany, in the Autumn of the year* 1828. By the Conductor of the London Gardner's Magazine.

The Garden of Sceaux, or, as it is there called, the Public Park at Sceaux, is the last garden of festivity which we shall notice. It is situated about six miles south from Paris, and is formed from a part of the remains of the grounds belonging to the magnificent château of the Duke de Penthièvre, which was destroyed at the first revolution. The rest of this extensive domain is broken down into a number of handsome villa residences, occupied by bankers and other citizens of Paris, and by strangers. Some of these villas, more especially those of the Admiral Tchitchagoff and the Comtesse de Bruce, we shall have occasion hereafter to notice. The immediate site of the château, or rather palace, exhibits a melancholy picture of fallen greatness. Among the principal appendages we could not help being struck with the bridge over the moat, with its accompanying guard-house, and a small battery for cannon, in magnificent Grecian architecture, and remaining almost entire.—What is now the garden of Sceaux was modified so as to adapt it to its present use by the citizens of Sceaux, and it now, as we were informed, belongs to that town. It is principally resorted to as a place for dancing, on Sundays and other holidays, and is well calculated for that purpose from the openness of its areas of turf in some places, and of smooth sand in others. There is besides an open pavilion, or *salle de danse*, for use during inclement weather, or hot sunshine. We had a plan of this garden taken by a Parisian land-surveyor; and we shall be more particular in our details than we should otherwise have been, for the purpose of recording its character at a particular point, or æra, in the progress of civilization in France. As knowledge and property become more universally and equally diffused, it appears to us, that not only every town and village will have its public garden for festive enjoyment, but every inn and public house.

The plan of this garden may be considered a very good representative of all others of the festive kind in France; for the forms and dispositions of architectural art are but few, and they necessarily produce great sameness, when compared with the unlimited forms of nature, or even with the imitations of those forms. But for a festive garden, the variety and intricacy of natural scenery is by no means so well adapted as the simple and determined forms, and the ample space of the geometric or architectural style. Hence it is, that by a species of instinct, the result of necessity, this style has been adopted, at least as far as we know, in all gardens of this description in Europe. It is essential to a festive garden that the company should assemble together in masses; and, for containing these masses, it is not only requisite to form appropriate spaces, but to connect these with subordinate and not far distant arrangements, in the same way as the living-rooms of a house are connected with its different servants apartments and offices. For such requisites the architectural style is peculiarly fitted; both from its determinate forms, and its direct, compressing, and systematic disposition of those forms. The natural style, on the other hand, depends for its effect on qualities the very opposite: on circuitousness, "the path that still begins and never ends; indefiniteness,—

"He gains all points, who pleasingly confounds,
Surprises, varies, and conceals the bounds;"

the concealment of art, and its employment, not for its own display, but for the imitation of nature. Trying the garden of Sceaux by these principles, it will be found judiciously adapted for the purposes for which it is intended, and therefore it may be considered as perfect of its kind.

This garden is used by all ranks in and about Paris. Whoever is decently dressed is admitted to the grounds; and whoever can pay a few sous for the music, may dance in the pavilion. We have been informed by residents in the neighborhood, of whom there are several whose gardens we shall have occasion to describe, that it is no uncommon thing to see an equipage of the first class arrive with a mother and her family, who descend and walk to the pavilion, and after dancing there a few quadrilles with whatever citizens they may meet, go back to their carriage again, and drive off. In this case, the exercise of dancing is obviously taken as a recreation or refreshment; just as the ladies of an English family of rank would drive to the door of Kensington Gardens, alight, walk round the gardens,

return to their carriage, and drive home again. In fact, dancing in France is as much a necessary of life as walking in England; and, among the highest classes, it is substituted for that exercise. Indeed the French, though fond of flowers and fruits, are not fond of gardening; and a lady of fashion, whether in Paris or at her country seat, is never seen walking in what, in England, would be called the pleasure-ground. Both men and women, as we have already observed (Vol. V. p. 642,) when they wish to take exercise in their own grounds, resort to the *balancoire*, or the *cheval de bois*; in short, to swing, see-saws, and roundabouts. Much as we admire the French, we cannot approve of this want of taste for rural recreations, and especially, for the beauties of nature and gardening. We have no doubt, however, that when the men become less military, and have directed their attention more intensely to agriculture; and when natural history shall have been more attended to in the education of women, the society of ease and leisure in France will have similar habits and tastes with similar society in England: for it ought never to be forgotten, that man is essentially the same animal, under whatever climate, government, or degree of civilization he may be found.

The Garden of Sceaux is so numerously frequented, that the mayor of the town thinks it necessary to publish annually two sets of regulations; one for the exterior, and the other (before alluded to) for the interior, police of the ball. These regulations are printed on large sheets of paper, and affixed to different places, both within and without the gardens. In a mixed society of persons of different ranks, and of different degrees of education, and especially among a people naturally so gay and fiery as the French, it is necessary that the restraints of civilization should be clearly defined, in order that the rules of etiquette for every occasion may be understood by all, and promptly enforced by opinion, as well as by authority.

Art. LXXXIX.—*On the Choice of Agricultural Implements.*

The variety and excellence of agricultural implements is so great that the prudent farmer in regard to that, as well in every other branch of his art, must study economy. He should not incur an unnecessary expense in buying them, nor in purchasing more than are essentially requisite, and can be profitably used. This maxim ought to be more especially attended to by young improvers, who are often tempted under the specious idea of diminishing labor, and saving expense, to buy a superfluous quantity of implements, which they afterwards find are of little use. It is remarked by an intelligent author on matters of husbandry, that a great diversity of disappointment, rather than of satisfaction to the farmer

In purchasing implements, the following rules are to be observed: they should be simple in their construction, both that their uses may be more easily understood, and that any common workman may be able to repair them, when they get out of order; the materials should be of a durable nature, that the labor may be less liable to interruption from their accidental failure; their form should be firm and compact, that they may not be injured by jolts and shaking; and that they may be the more safely worked by country labourers, who are but little accustomed to the use of delicate tools. In larger machines, symmetry, and lightness of shape, ought to be particularly attended to: for a heavy carriage, like a great horse, is worn out by its own weight, nearly as much as by what he carries. The wood should be cut up and placed in a position the best calculated to resist pressure; and mortices, so likely to weaken the wood, should, as much as possible, be avoided; at the same time, implements should be made as light as is consistent with the strength that is necessary. Their price should be such, that farmers in moderate circumstances can afford to buy them; yet for the sake of a low price, the judicious farmer will not purchase articles, either of a flimsy fabric, or a faulty form; and implements ought to be suited to the nature of the country, whether hilly or level, and more especially to the quality of the soil; for those which are calculated for light land, will not answer equally well in soils that are heavy and adhesive. *Ency. of Agri.*

Art. XC.—*Of Fatting Sheep and Lambs.*

The subject of fatting sheep may be considered with regard to the age at which fatting is commenced, the kind of food and the manner of supplying it.

The age at which sheep are fatted depends upon the breed, some breeds, such as the Leicester, maturing at an earlier age than others, under the same circumstances; and also in the abundance and quality of the food on which they are reared; a disposition to early obesity, as well as a gradual tendency towards that form which indicates a propensity to fatten, being materially promoted by rich food, while the young animals are yet in a growing state. On good land, the Leicester wethers are very generally brought to a profitable state of fatness before they are eighteen months old, and are seldom kept for fatting beyond the age of two years; the Highland breeds, on the other hand, though prepared, by means of turnips, a year at least sooner than they could be in former times, usually go to the shambles when from three to four years old. The ewes of the first description are commonly fatted after having brought their lambs for three seasons, that is, after they have completed their fourth year, and those of the small breeds, at from five to seven years of age, according to circumstances.

The kinds of food on which sheep are fatted, are good pastures, permanent or temporary, herbage crops, as clovers, tares, &c. turnips, and other roots; and linseed cake, grains, or other edible refuse of the oil manufactory, brewery, and distillery.

As *general rules for fattening sheep*, as well as other animals, it should be made a rule never to allow them to lose flesh from the earliest age, till they are sent to the butcher; that it is found of much advantage with a view to speedy fattening, as well as to the economy of food, to separate a flock in o divisions, corresponding with its different ages, and the purpose of the owner as to the time of carrying them to market; and that the change from the food of store to fatting stock, from that which is barely capable of supporting the condition which they have already attained, to that which is adapted to their speedy improvement in fatting, ought to be gradual and progressive. Thus, very

lean sheep are never, in good management, put to full turnips in winter, nor to rich pastures in summer; they are prepared for turnips in good grass land; often on the after-grass of mown grounds, and kept on second year's leys, and afterwards on a moderate allowance of turnips, if they are fatted on pastures. It is a common practice, in the instance of the Leicesters, to keep all that are not meant for breeding always in a state of fatness, and after full feeding on turnips through winter and spring, to finish them on the first year's clover early in summer, when the prices of meat are usually the highest.

The fattening of lambs during summer, requires nothing more than keeping their mothers and them on the richest and best pasturage, and supplying such artificial food as the situation, season, and other circumstances may require; but the fatting of lambs duriug winter and spring, requires attention to three things, the breed, or if any breed be used indifferently, the period of dropping, the lamb house, and the feeding.

With respect to the breed, as the sheep will take the ram at any season, any variety may be so managed as to drop their lambs at any period of the year, but is found by experience, that the Dorsetshire sheep is easiest made to yean, and therefore this is the sort generally employed in Middlesex for rearing what is called house lamb, for the metropolis. The selection of rams for breeding the lambs to be house fed, is, according to Middleton, founded on the following circumstances: the sucklers, salesmen, and butchers of London, are aware that such lambs as have sharp barbs on the inside of their lips, are certainly of a deep color after being buchered; and all those whose barbs are naturally blunt, do as certainly produce fair meat. This knowledge has been the occasion of many lambs of the latter kind being kept for rams, and sent into Dorsetshire expressly for the purpose of improving the color of the flesh of house lambs, the issue of such rams can generally be warranted fair, and such meat always sells at a higher price; hence arose the mistaken notion that Middlesex rams were necessary to procure house lambs.

The economy of the suckling-house is as follows: The sheep which begin to lamb about Michaelmas are kept in the close during the day, and in the house during the night, until they have produced twenty or thirty lambs. These lambs are then put into a lamb-house which is kept constantly well littered with clean wheat straw; and chalk, both in lump and in powder, is provided for them to lick, in order to prevent looseness, and thereby preserve the lambs in health. As a prevention against gnawing the boards, or eating each other's wool, a little wheat straw is placed, with the ears downwards, in a rack within their reach, with which they amuse themselves, and of which they eat a small quantity. In this house they are kept, with great care and attention, until fit for the butcher.

The mothers of the lambs are turned, every night at eight o'clock, into the lamb-house to their offspring. At six o'clock in the morning, these mothers are separated from their lambs, and turned into the pastures; and at eight o'clock, such ewes as have lost their own lambs, and those ewes whose lambs are sold, are brought in and held by the head till the lambs, by turns, suck them clean: they are then turned into the pasture; at twelve o'clock, the mothers of the lambs are driven from the pasture into the lamb-house for an hour, in the course of which time each lamb is suckled by its mother. At four o,clock, all the ewes that have not lambs of their own are again brought to the lamb-house, and held for the lambs to suck; and at night, the mothers of the lambs are brought to them for the night.

This method of suckling is continued all the year. The breeders select such of the lambs as become fat enough, and of proper age (about eight weeks old,) for slaughter, and send them to markets during December, and three or four succeeding months, at prices which vary from one guinea to four, and the rest of year at about two guineas each. This is severe work for the ewes, and some of them die under excess of exhaustion. However, care is taken that they have plenty of food; for when green food (viz. turnips, cole, rye, tares, clover, &c.) begins to fail, brewer's grains are given them in troughs, and second-crop hay in racks, as well to support the ewes, as to supply the lambs with plenty of milk; for, if that should not be abundant, the lambs would become stunted, in which case no food could fatten them.—*Ency. of Agri.*

Art. XCI.—*Of Saving and Making the most of Manure.*

Mr. Young observes that the attention paid to manure in any country, indicates with certainty the state of its agriculture. Where no exertions are made, by artificial means, to increase the quantity beyond the ordinary supply, there agriculture is ever in a low and debased state.

"On the other hand, when a vigilant and persevering industry is ever on the alert; when numerous expedients are tried to enlarge the quantity as well as to improve the quality of manures; when composts, diversified both in the ingredients and the proportions, become objects of curiosity and experiment;—these are the first symptoms of returning life and vigour, and may be hailed as the precursors of more flattering and auspicious prospects.

The ardor of agricultural pursuits in England was ushered in by these beginnings; and at the present day, there is no object of more paramount interest than the augmentation of the dunghill." We have before observed that the decomposition of animal and vegetable substances, in every instance is effected by the constituent principles *becoming fluid* and sinking *downwards*, or assuming a *gaseous form* and ascending *upwards*. To suffer these fluid and gaseous particles therefore to escape or run off, as is too often the case, without any care on the part of the farmer for *retaining* them, is the highest profligacy.

To secure the former or *fluid parts*, our best farmers recommend the *formation of a pit* in some convenient part of the yard, of a size proportionate to the stock of cattle usually kept by the farmer. This pit may slope gently inwards gradually deepening towards the centre, which should be at the depth of about three feet. After it is thus hollowed out, the texture of the bottom should be examined, and if found firm, impervious, and capable of containing the juices, no further trouble is requisite, and the work is complete.

But if the bottom be found open and porous, it should be coated with clay, and lined with large flat stones. Into this pit, earth from some neighbouring

field should be first brought and strewed over the bottom and sloping sides, to the thickness of from nine to twelve inches. Then a safe depository will be prepared for the cleanings of the barn, for waste straw and weeds, for the sweepings of the kitchen, for the stems of peas, beans, cabbages, and in short, all vegetable matter of woody fibre, as well as for the manure of feeding cattle.

Thither, too, the urine should be conducted by a drain, for it is an unpardonable waste to lose the benefit of this rich and invigorating manure. To prevent the escape of the *gaseous* substances, which in the process of fermentation, are continually disengaged, the whole heap when duly formed, should be covered over with a thick coating of earth, which absorbs all the putrid effluvia, and retains them in safe keeping for the use of the crop.

The neglect of these and similar measures for making and saving manure, is justly reprimanded in the New England Farmer. "Rotting manure," says the Editor, "in a barn-yard or in any situation in which its volatile and liquid products escape into the atmosphere, or soak into the ground not designed to support vegetation, is very slovenly and wasteful, and always to be avoided if possible.

"The steam, effluvia, or gas, which is suffered to escape from fermenting manure, is not only almost altogether lost to useful vegetation, but what is still worse, fills the atmosphere with particles injurious to health, and often destructive of life. The evaporations from a manure yard rob a farmer of part of his substance, starve his crops, and it is well if they do not moreover poison him and his family by their contaminating influence.

"Some farmers' barn yards, hog-pens, and other receptacles of manure are very offensive, and if they do not generate typhus fever in its worst forms, which we fear is frequently the case, they at least cause a degree of langor and debility which imbitters existence, and in a great measure disqualifies for any of the useful purposes of life. Not only manure is allowed to waste its riches on the tainted air, but dead animals, the contents of privies, the emptyings of sinks, spoiled provisions, the refuse of the dairy, the pantry and the cellar are allowed to mingle their odours in nauseating and deleterious profusion.

"Sometimes the highway is rendered very delectable in consequence of a dead horse, sheep, dog or cat undergoing the process of decomposition in a situation most correctly calculated for the accommodation of passengers, and to afford the farmer and his family the full fruition of their fragrance. Some farmers hang dead lambs, cats, and dogs, in the forks of apple or other trees, or throw them on hovels or stumps at some elevation from the ground, to give the pestilential emanations a good chance to diffuse themselves, without coming in contact with the earth, which might convert them from poison for men and animals into food for vegetables.

"Practices of this kind are reproved by Sir Humphrey Davy, who says, that "by covering dead animals with five or six times their bulk of soil, mixed with one part of lime, and suffering them to remain for a few months, their decomposition would impregnate the soil with soluble matter, so as to render it an excellent manure; and by mixing a little fresh quick lime with it, at the time of its removal, the disagreeable effluvia will be in a great measure destroyed; and it might be employed in the same way as any other manure to crops.

"If however quicklime cannot readily be obtained to accelerate the conversion of dead animals into manure it is probable, (though we would not assert it for a fact) that covering the carcases with a pretty thick coat of unleached ashes, and placing over all a quantity of earth, or earthy substance, would hasten decomposition, and secure the gases resulting from putresence.

"Earth, alone, however, will answer a valuable purpose, and in *time* the largest animal will be decomposed, if buried in nothing but common soil; and the latter will serve as a store house, and preserve the products of the farmer for the use of the crops to which it may be applied. Not only the carcases of animals but their evacuations are rendered of little value by long exposure to the air.

"Indeed every moment of such exposure robs them of some part of their fertility as well as contaminates the atmosphere. Fresh manure should be kept as carefully from the sun and rain as grass which has been cut for hay. When cattle have been yarded over night it would be well to throw their evacuations into small heaps or beds, and cover them at least with a sufficient quantity of earth, to prevent fermentation, or absorb its products.

"This would cost but little labour, and would be so neat and healthy as well as economical that we are confident farmers will adopt it." The author of "Letters of Agricola," says, "Earth is a powerful absorber of all the gases which arise from putrefaction. The stench proceeding from the dissolution of organized matter never rises through the ground to assail the nostrils, although it is sufficiently offensive from bodies corrupting in air or water.

"A strongly dunged field, after being ploughed, sown and harrowed, sends forth a healthful and refreshing smell, a proof that all the putrid vapours, which otherwise would anoy us, are absorbed and retained for the nutrition of the crop. It is on this account that the poorest earth can be enriched in a very high degree by mere exposure to the gases of putrefaction. Put a layer of common soil along the top of a fermenting dung-hill, from twelve to eighteen inches thick, and allow it to remain there while the process is carrying on with activity; and afterwards separate it carefully from the heap, and it will have been impregnated with the most fertilizing virtues.

"A skilful agriculturist would no more think of allowing a violent fermentation to being going on in his dung-hill unmixed with earth or other matter, to fix and secure the gaseous elements, than the distiller would suffer his apparatus to be set at work without surmounting his still with a worm to cool and condense the rarefied spirit, which ascends in evaporation. In both the most precious matter is that which assumes the aeriform state; and to behold it escaping with unconcerned indifference, is a demonstration of the most profound ignorance."—*Agri. Reader.*

Art. XCII.—*Of Rolling Lands.*

[The following is taken from the Rev. Adam Dickson's Treatise of Agriculture, the third edition of which was published in Scotland in 1766. Although the practice of rolling has been pursued for ages past, and

is still, by the greater part of the most enlightened farmers of the present day; yet it is altogether neglected by many whose lands for the want of it are suffering.—*Ed.*]

Rolling is practised with success both on land lying in grass and on land in tillage. It is of advantage to land in grass, by pressing down mole-hills and mole-runs. Some say, that it also destroys fog. [Moss and coarse grass produced by a soft and spongy surface.]

When land is laid down in grass for hay, rolling is of use in smoothing the surface; and, when laid down in grass for pasture, it makes the grass stool, (tiller,) and grow thicker.

There is a kind of land, which, when clover is sown upon it, throws out the young plants after frost. Rolling, in the beginning of winter, and immediately after the frost is gone, it is said, will, in some measure, prevent this. The first rolling prevents the frost from penetrating so deep, as otherwise it would do; and the second makes the land firm, after having been loosed by the change from frost to open weather.

Rolling may also be used with advantage upon land in tillage. When the land is naturally stiff, and may be reduced by the harrow, rolling is very improper; for it makes this kind of land still firmer than the harrow does. But if the land rises in clods, which the harrow does not reduce, rolling is very proper; for it smooths the surface, and breaks the clods, more effectually than harrowing.

When the land is light and spongy, the roller should always be applied after seed is sown; for it is scarcely possible to make this land too firm.

It was observed, that, to destroy root-weeds, land should be made rough, and raised in as large pieces as possible; and that it should be allowed to lie for some time in that situation. Rolling after this is of great use; for, without it, if the weather continues dry, it will not be possible to make the land fit for receiving another plouging.

If the land be soft below, and some hard clods upon the surface, which the harrow does not break, rolling may be used with some advantage: for, besides smoothing the surface, it will bruise some of the clods; and such of them as are pressed down, will be dissolved by the natural fermentation of the soil, if in good heart.

Sometimes in stiff land, ploughed dry, after a former wet ploughing, or when, by any accident, it has been much trod upon, the whole rises in hard clods, which the harrows cannot break, so as to cover the seed. In this case, rolling is of great use. It bruises some of the clods; and, when followed by the break-harrow, these clods are raised up and broken. Though rolling should do no service but smooth the surface, yet, on that account, it should be practised. For when the surface is smooth, the corn may be cut down more expeditiously than when it is rough and uneven. When grass-seeds are sown for hay, it is absolutely necessary to smooth the surface: the roller is most proper for this. Some use it before, and some after sowing. When it is used before sowing, the seed is more equally scattered.

Grass-seeds must be sown in such a manner, as to lie near the surface; otherwise they will not vegetate. The making the land firm by rolling is therefore an advantage, as, by it, the sap is better preserved; and this does not so much damage to grass as to corn, for several kinds of it are commonly better forragers.

Art. XCIII.—*Village Gardens.*

Many farmers not only have a disinclination to work in their gardens themselves, but are disposed to animadvert upon others, who devote some little time and incur some little expense in cultivating beautiful *flowers* and choice fruit. And these very farmers, perchance, are benevolent men, well wishers to their fellow creatures, and would second any undertaking calculated to benefit their neighbors. This unfavourable opinion of floriculture arises from a too limited view of the *usefulness* of these gay, beautiful and delicate productions of nature. We have, in a former volume, given Cobbett's strong recommendation of the culture of green-house and garden plants. We give the following, on village gardens, from Sinclair's Code of Agriculture.

Round many villages and small towns, gardens of moderate size are numerous and productive. It is a fortunate circumstance, when manufacturers and mechanics take a delight in them; since their health is promoted by the exercise in the open air for which an opportunity is thus afforded; while at the same time, any tendency to immorality is greatly checked by agreeable and useful means of occupation. The village garden is frequently the retreat of the occupier, in the summer evenings, after the labors of the day, where he agreeably employs himself, in watching over the progress of his crops, and the success of his exertions.

In those manufacturing villages, or small towns where a number of inhabitants have gardens, a taste for keeping them in good order is prevalent, and few instances of dissipation occur. In such gardens, not only aromatic herbs and medicinal plants, are cultivated but flowers of various sorts are raised, as carnations, pinks, auriculæ, polyanthus, &c. by the sale of which some money is obtained. The Florist Society at Paisley in Scotland, is a sufficient proof of the advantage to be derived from directing the attention of manufacturers in such innocent pursuits. The rearing of beautiful flowers is found to improve their taste for manufacturing elegant patterns of fancy muslin; while the florists of Paisely have long been remarked for the peacefulness of their dispositions and the sobriety of their manners.

Art. XCIV.—*Extraordinary Long Wooled Sheep, of the Pure Blood, of the New Leicester or Bakewell Breed.*

Having witnessed so interesting a sight, through the friendly communication of John Warren, Esq. an English gentleman, lately arrived in America, we have much pleasure in stating the following for the information of our agricultural friends, and of the careful breeders also, and graziers of sheep in particular.

The above named superior sheep, are just arrived in this city, from England, on board the packet ship Great Britain, Capt. French, whose enterprising and becoming genius has induced him to make a purchase of one of the tups, or rams; for the captain we are told, is an excellent cultivator, or Ploughman on *land*, as well as on the salt and briny deep. Mr. Stockdale, of Kendall, the gentleman to whom these excellent

animals belong, is from the county of Westmoreland, and is just arrived with them, with the praiseworthy intention of locating on some of the rich soils of America: and thus, by following the judicious steps of his countryman, Mr. John Barney, near Philadelphia, (See his excellent letter on the subject in our April number,) he will be amply repaid, for all his out-fit and exertions.

Our Readers will be somewhat surprised, peradventure, when we state to them, that the above stock are superior to any thing of the kind, ever yet introduced into America. Our friend Mr. Warren offered one hundred dollars for one of the "gimmers," or yearling ewe sheep; yet, he was unable to become a purchaser even at that high price. The owner (Mr. Stockdale) declaring, that the stock were worth double that amount to him, to breed from, as a "stock-master," or breeder of sheep. We trust that many of our readers will have the pleasure of witnessing the good effects of the increasing progeny of this superior breed of sheep throughout the United States in the course of a few years.

To the curious we beg to add that we have been favoured by Mr. Stockdale, with specimens of the superior quality of the wool of this breed of sheep, viz. that plucked from the fleece of the tup, (ram) or male sheep, measuring the extraordinary length of fourteen inches; and that from the gimmer or ewe sheep, ten inches in length.

These specimens may be seen at 550 Broadway.

J. F.

ART. XCV.—*Second Annual Report of the New-York State Society for the Promotion of Temperance.* Albany, 1831.

In looking at the aspect of our country, there was, some eighteen months ago, no feature particularly disgusting, nothing that appeared as a national calamity, but that of the liquid lava belching forth in every section, consuming the bowels, corrupting the heart, and destroying the intellect of our countrymen. At a period when this destroyer had assumed the nature of a demoniac, and had spread himself over the whole extent of our country, and was about settling down as a vast and frightful incubus, some patriotic spirits, kindreds to those of Washington and his comrades, rose in "times that tried men's souls," commenced a warfare, in which seven years strugglings and victories will achieve a complete and "glorious independence."

They have sent forth and stationed their recruiting parties in every part of the land, calling upon the hardy yeomanry in particular, to enlist under the banners of freedom. It is expected that every friend of his country will, immediately, not only join the standard of his countrymen, but strive either to take as prisoner or, induce to desert, every *red coat* that has a footing in the land.

As specimens of the spirit excited among farmers, we give the following from the Report of Monroe County.

"From these reports it appears that there are in this country 2,838 persons who have given the pledge of entire abstinence, being an increase of more than 2,200 since the last annual meeting; that the quantity of ardent spirits consumed, has diminished during the past year, according to the most accurate estimate which the committee have been able to make, in a ratio of from one-half to two-thirds; that forty-nine habitual drunkards have died during the year; forty-three have been hopefully reformed, so that the number of drunkards in this county would have been diminished ninety-two, if none had been drawn into the ranks from the class of temperate drinkers; that thirty-three retailers have abandoned the traffic; and that *six hundred and forty-four farmers* have performed their usual labour without the use of ardent spirits!"

The following is from that of Ulster County.

"The temperance society of New-Paltz was formed on the 30th of June last, on the principle of total abstinence. About fifty gave their names to the pledge at the time, and the number has since increased to about eighty.

"The season of harvesting occurring soon after the formation of the society, several farmers commenced the work of getting in their harvest without affording their hands ardent spirits, who had always before practiced giving it. No difficulty was experienced: cheerfulness, peace and harmony was the result with all in their employ. Not one instance of a failure to procure hands occurred. The conviction is firmly fixed even upon some who before were wavering, that hands, and the best of hands, may be had on the temperance principle. Upon this topic your committee would not dwell: the experiment is no longer doubtful. Facts innumerable are before the public, to prove that it is entirely unnecessary to furnish liquor in order to procure mechanics or laborers. A farmer in this town, of extensive operations, declared that he could not only obtain plenty, but the very best of hands without liquor—and remarked, that the end will be, that temperance men will have the best of hands in their employ, (for a sober man would rather work for such men) while those who deal out liquor will have to take up with drunkards. We have not heard of a solitary case among us, and there are numbers who adopted the temperance plan the last season, where the experiment has been tried to abolish the use of liquor, that has failed: on the other hand, all are pleased with the result. The cause has now taken hold, and we trust that one farmer after another will come into the measure, until the article of ardent spirits will go into entire disuse, except when presented by the physician.

"Numerous facts might be adduced to show that there has of late been a great diminution in the consumption of ardent spirits in this vicinity, although much, very much, yet remains to be accomplished. A few facts, within the knowledge of the committee, will be presented to illustrate the subject.

"Twenty-one farmers have got in their harvest the last season without liquor, all of whom, but with three or four exceptions, used it the previous season. One person, who used five gallons the previous harvest, and only half a gallon the last, not partaking himself, is now one of our members. Two families reduced the use of it to three-fourths the last harvest, one of which became so in love with our principles as to unite with us. A person who, when the society was organized, said he never could become a member until his mind should greatly alter, has now joined us. An old inhabitant, who has been engaged in distilling it, declares that he knows farmers in this place who formerly consumed a barrel of whiskey during the season of harvest, that have not consumed four gallons the last har-

vest. A merchant states that he did not sell, the last season of harvesting, a barrel of liquor where he formerly sold a hogshead, and intimates, we understand, his disposition to relinquish the traffic in it altogether. An old inn-keeper, who has kept a public house in this town about forty years, states, that if any person had told him a year ago that such a change would take place in persons resorting to his house, as he has already witnessed, he would have pronounced it incredible. He declares that he does not now sell a gill of liquor in his house where he formerly sold a quart. Such facts speak for themselves. One store, connected with an extensive manufacturing establishment, on which thirty families rely for supplies, besides an extensive neighbouring custom, discontinued the sale of ardent spirits previous to the formation of this society, which has had a very happy influence on the neighbourhood: for although the discontinuance at this store caused other small ones to spring up, expressly for the sale of it, it is observed that they are visited by the determined, persevering drinkers only, while many respectable families who had formerly obtained it from habit, while it was to be got with so much facility, when obtaining more necessary articles, readily done without it when it was beyond their reach in their ordinary course of dealing. Your committee would from this fact, warn store-keepers of their dreadful responsibility. The argument will not avail, that if they do not supply it, others will; for every one that discontinues the sale will lessen the evil—there will be more or less of their customers that will diminish the quantity, or defer getting it by the very circumstance of their discontinuing."

The next paragraphs are from the concluding remarks of the Report of the State Society.

"*Reduced consumption of ardent spirits.* It is not easy to ascertain how far the use of spirits in this state has been diminished within the last four or five years; from the general tenor of the county reports, the committee think that they are warranted in stating, that not one half of the quantity of spirits is now drank in this state that there was before the temperance reformation began. The astonishing fact was discovered at the proper department in the city of Washington, when both foreign and domestic spirits were taxed, that the whole quantity of spirits drank annually in the United States, was equal to five gallons for every individual in our whole population. But for the temperance reformation, therefore, the people of this state would probably be drinking now about ten millions of gallons of spirits annually; and, if they now drink but half this quantity of liquid fire, then the temperance reformation should be credited with saving to the state not less, certainly, than, $2,000,000 a year—and with a saving to the consumer, who pays one, two and even three hundred per cent profit on much he buys, of not less than four or five millions of dollars a year. But our greatest gains from the temperance reformation are not to be estimated in dollars. They are manifest in our improved morals, and in the fresh vigour which is infused into every branch of industry. They are manifest in the unexampled prosperity which pervades our state, and which all candid observers agree in ascribing so largely to the arrest of the desolating tide of intemperance.

"*Farmers.* A great number of farmers in almost every county in the state, have abandoned the use of ardent spirits. In the county of Monroe alone there are 644 farmers, who have taken this course to increase their wealth, and to preserve their own and their neighbours' morals."

ART. XCVI.—*Winter Butter, and Short Horned Cattle.*

In this or the succeeding number of the New-York Farmer, we hope to furnish our readers with an account of an important improvement in the production of cream. In the mean time we give the following from the N. E. Farmer.

MR. EDITOR—Much has been said in the N. E. Farmer about *freezing* the milk to obtain cream for butter. My objections to this practice are, the butter so made is inclining to be *white, will not sell well*, and is *crumbly* and *will not cut handsomely*. Besides, I think the flavor hardly equal to that made in the method we have pursued.

Our object has been to keep the milk in a temperature always *above* the freezing point—say, not lower than 40 or 45 degrees.

The method which we have practised, and which I think best for winter, was recommended to me by the great friend to agricultural improvement, CHARLES VAUGHAN, Esq. as followed in the counties of Somerset and Devon, England. The milk immediately after it is taken from the cow, is put in a copper or brass vessel, of a size according to the quantity of the milk, care being taken that it is not more than eight or ten inches in depth, and gradually brought to within 2 or 3 degrees of boiling heat, when it is permitted slowly to cool. In the course of five or six hours, the most of the cream rises in a beautiful thick sheet, and is so solid that it may be cut with a knife in almost any form. It comes to butter almost immediately, *never* requiring more than five minutes' churning. The butter is of fine quality, being of good color and flavor. The practice also saves labour and *cold fingers*. We have in this way had no butter that was not as high colored as what I send you. But perhaps the high color may be owing considerably to the extra richness of the milk, and this quality of the milk is wholly attributable to the cows. My stock consists of the *Short Horn* breed in the blood of *Cœlebs, Denton*, and *Holderness*, the *Herefordshire* in the blood of SIR ISAAC, the *Bakewell*, and that excellent, though undefined breed introduced here from England by CHARLES VAUGHAN, Esq. and the best *selected native*.

I am aware that much contrariety of opinion exists as to the properties and relative value of the different breeds of cattle, and my intentions have been, and still are, to go through with a series of *fair experiments* on the subject.

So far as several years' observation and one years' *experience* will enable me to judge, I am inclined to think the improved imported races (the Short horns, particularly,) the most *profitable*,—that is taking them for all purposes. I do not know that they will give any *more* milk than the 'natives,' but it is, I believe, generally of a *better quality*, and they certainly keep in *much* better order on the same food. They are also *put together* more on mechanical principles, are *stronger*, and have better *constitutions*. I would recommend to every farmer to give them a fair trial.

Yours with respect, SANFORD HOWARD.

Hallowell, April 18, 1831.

ART. XCVII.—*An Essay on the Practicability of Cultivating the Honey Bee in Maritime Towns and Cities, as a source of Domestic Economy and Profit.* By J. V. C. SMITH, M. D. Boston, Perkins and Marvin; New York, J Leavitt. 18 mo. pages 106.

This little work has just issued from the Boston press. After adverting to the fact that bees often go to very considerable distances in quest of their nectary the writer remarks, "that in cities, provided there were no flowerets for them to visit, they would go in search of them in the environs. But all cities have gardens, and some of them are of such extent, in Boston, particularly, that, unaided by the millions of flowers, flourishing under every window, or springing up on the borders of the beautiful common, in my opinion, they would sustain, alone, a large number of hives. Again, there are an immense number of trees, in all cities, by the public walks, and in the grounds of all valuable estates, and in sufficient abundance too, to sustain, without cultivated gardens, hives enough to supply a portion of the population with a moderate quantity of honey

"But when the trees exhaling sweet dews, the shrubbery, the flower gardens and the thousands of flower pots, yielding a rich perfume, are taken into consideration, it must be evident, that the paved city offers no objections to the successful and profitable cultivation of the honey-bee. If any demonstration is required, it need only be said that I have repeatedly exhibited a glass hive, containing over one hundred pounds, which was made in the heart of Boston, in a few summer weeks.

"Were it only for the gratification arising from the inspection of such a wonder-working insect, the man of leisure would be amply compensated for the attention he might bestow on a hive, as a curiosity, had he no higher motive. Their untiring industry would constantly admonish the indolent, that by "*industry we thrive*," and perhaps, prompt some to make exertion, if in nothing else, in raising bees,—as there is always a prospect of gain, independent of their own personal labor.

"Again, in large commercial towns, there are men of overgrown fortunes, who, on retiring from the active business of life, with the expectation of enjoying the the remnant of their days, find themselves unexpectedly disappointed in every attempt to be happy: the secret of their misery is this,—an idle man is always miserable. To such gentlemen, I would strongly urge the culture of the bee.—If they were not fond of the product, give it to the poor:—if they were not philosophers, they would insensibly, as apiarians, find themselves studying the great volume of nature, whose fair page has never before arrested their attention;—and if any one should have the misfortune to be a skeptic or even tinctured with infidelity, his contemplations, on the habits and economy of the little honey bee, would, at once, settle all his doubts.

"Another inducement for engaging in the cultivation of bees, in cities, arises from the consideration of the fact, that an ample return is speedily made for any moderate expenditure of money, in a most excellent, wholesome kind of food, at a rate, so much below an ordinary market price, as to make it an object, even with the rich.

"To the middling classes of cities,—the truly laborious, who might, and who can attend to the raising of honey, without at all interfering with their ordinary business, this would, in the end, were it not a source of profit, be, at least, an easy mode of procuring a luxury. I am perfectly convinced that the laboring man can supply his family with rich, pure virgin honey, through the year, at less than one cent a pound, after he has sold enough to pay the first cost of his apiary. Honey is a substitute for butter, in some parts of oriental countries; and in this, were it afforded at a rate so moderate, that the poor,—that peculiar class of poor indigenous to cities, could afford to purchase, it would be a wholesome, useful substitute for butter, a part of the time, and all its seasons, prove a very valuable article in household economy. And lastly, if there were ever a surplus, in any family, it would have a ready sale.

"By some sad misapprehension, there is an impression abroad, that a profitable cultivation of bees, can only be undertaken in the country. One would suppose, in travelling through New England, that they were wholly unknown, in a great proportion of the large farming towns. Occasionally the eye discovers a miserable, poverty-stricken bee-shed, nailed to the gloomy side of some old barn,—tolerated, it would seem, by the farmer, as an hereditary appendage to his land, but he is apparently unconscious of the bee's renowned character for patient, profitable labor, even in the service of an unfeeling master. It matters not, whether the flowers from which the bee sips its honey, be at the foot of the hive, or in a neighboring village; wherever they thrive best, there the bee wends its way, with unfailing success. Wild bees, whose home is a hollow limb, in the thickest of the forest, remote from cultivated fields, fill up, in process of time, the whole cylinder of a tree. The accomplishment of this task, the more surprising, when it is recollected that few or no flowers are growing near, evidences the exceedingly persevering character of the creature under consideration. Enough has been said, though more arguments are still in reservation, when required, to convince those who may still have doubts, of the practicability of raising honey in great abundance, in the very heart of our principal cities.

Method of beginning an Apiary in town.

"In the vicinity of Boston, hives, of the ordinary kind, without regard to the quantity of honey they may contain, or the number of bees constituting the swarm, are sold for eight, nine and ten dollars. The price, with some, appears to be regulated by the size of the wooden box, containing the bees. This, however, is bad for the buyer, as the tremendous box may contain only a sickly, impoverished, half starved community, which, instead of supplying the purchaser's wants, or answering his expectations, will be a source of anxiety and vexation. I have been imposed upon in this way, myself, and therefore caution others against a similar imposition. A board hive, some fifteen or eighteen inches square, by six in depth, independent of the top and floor-board, containing bees that appear lively, pour out in active abundance, when irritated, and weighing in the whole, from thirty-five to forty pound, promises very well.

"The reader must understand, that this weight has reference to the early spring. It shows that enough of the old stock of honey remains, to sustain the inmates till the foraging season commences. Six, ten, and at farthest, twenty pounds of honey will feed a large swarm through the winter. The consumption of

honey depends, in the first place, on the size of the swarm, and in the second, on the temperature of the weather. Several experiments, corroborated by the testimony of writers, shows that there are from 12,000 to 20,000 working bees, or females, and from 1,500 to 2,000 drones, or males, in a thrifty hive; the number, after all, depending of course, on the magnitude of the box in which they are contained. Dr. Bevan a late writer on the bee, makes a similar estimate. Hives, purchased to begin a town establisment, will be found ill-shapen, rough, unfinished and inconvenient, but it is best to tolerate one of them one year, for the sake of new swarms the following season, when the parent hive may be dispensed with, and the new bees lodged in such habitations as will answer the end in view. If, however, the purchaser is adroit and fearless, he may at once drive his bees into a hive, of that peculiar construction, hereafter to be described, from which he can, with impunity, take for his table, the proceeds of their labors.

"Sometimes the attempt, by an unskilful operator, to shift a swarm from an old to a new hive, produces such excitement and disorder, that they either at once abandon the new habitation, or become so discouraged and weakened as to be wholly unprofitable the first year.

"The proper time for moving hives from the country to the town, or from one village to another, is early in the spring,—though, through all the winter months, when the bees are in that peculiar condition bordering on torpidity, which prevents them from resenting unusual commotion, the best opportunities are presented. If necessary, in consequence of sudden fires in the vicinity, they can be moved in the heat of summer to other localities, if the precaution is taken to draw a sheet or close sack over the hive, in such a manner that none can escape. The observation is worth remembering, as circumstances, very frequently perhaps, may compel the owner to move, unexpectedly, his hives at a moment's warning. A canvass case, made with reference to contingencies, would be particularly serviceable. If one bee makes its exit, others soon contrive to follow, and nothing can withstand their combined attacks, when maddened to desperation.—Should any of them get between the hive and sack, no danger will ensue, as they become quiet as soon the hive is at rest. Proper care should be had to a free ventilation while moving, as they cannot survive long without pure, fresh air.

"Another excellent plan of moving hives safely, from the country, or from place to place in the door yard, consists in having trunk handles screwed to the sides, with which they can be safely carried by two men, without the least motion that would disturb the bees.

"Families in cities are frequently changing their residences,—but this is no objection to keeping bees, as they may be moved at evening to any other part of the town, where, on the following morning they will begin the labors of the day as though no change of place had been affected. In France, hives are carried over the country on spring carriages, for pasturage. Through the day, the waggon is at rest, but moves onward from place to place in the night. The same thing is done in Egypt, where immense numbers of swarms are kept in boats, which are floated in the night, up the river Nile,—resting in the day-time.

"In case the hive is set in a broad clothes-basket, great precaution is necessary, or it will be upset. In a spring carriage, carefully driven, bees may be conveyed long journies over the country. Such handles are so serviceable, in the course of managing an apiary, that no hive should be without them. Instead of closing the door-way, when moving hives, with a block, it should only be covered with coarse gauze or wire cloth that a free circulation be not impeded. The heat of a middling sized hive, if closed, is such, that the bees cannot live but a few hours. All insects, in proportion to the magnitude of their bodies, have peculiar and striking developement of the respiratory organs: on this depends their surprising strength, and power of flying through the air, whilst sustaining a body equal in weight to their own. Beside, the exhalation from their bodies, is copious, forming drops of fluid in autumn and spring, coursing down the sides of the floor. If the highways between the layers of comb are obstructed, as is sometimes the case, with multitudes of inactive bees, the fluid mixes and dilutes the honey, and sweeps off whole phalanxes of bees by drowning."

We very cheerfully recommend this little volume to our readers. It contains a good deal of valuable and interesting information on the bee—beautiful cuts of ornamental bee-houses, and of those most approved, for the profitable management of the bee.

The following valuable information is contained in a letter from P. N. O'Barnum of Versailles, Ky. to John Prince, Esq. of Mass. and published in the N. E. Farmer. We take great pleasure in circulating it, and hope no person will, after reading it, continue the barbarous practice of killing these useful and industrious insects in procuring the honey.

My Dear Sir—Your friendly letter of October last was forwarded to me at this place, but did not reach this until my departure for the southern counties; consequently this is the first opportunity I have had, and must plead my excuse for not attending to your request sooner: and now I have to regret that my friend Doct. Parker has not furnished me with *all* the information I require, concerning the management of Bees; but he has kindly afforded me an opportunity of examining his Bee-house, and if I possessed the power of description you should certainly have it, intelligibly. This much is certain, that he has in the garret a great number of bees. He thinks about 40 swarms at this time, all proceeding from one hive, put there about 10 years ago. He placed the hive near the brick wall or end of his garret leaving an aperture, or small hole in the wall, through which the bees passed out and in. A tight room was then made for them, such as may be made in the end of any house, leaving a door, which may be locked or bolted. The room must be tight, admitting neither air or light, or very little of either. A large box was then put into this room, say 8 by 4 feet, one half sawed in two, with small hinges on it, and fastened at the bottom by a bolt or lock, for the convenience of raising up and getting the honey whenever you may want it. The hive being placed on the box, and the latter having 5 or 6 holes bored in it by a small auger—as soon as the bees have filled the hive, they go down into the box, and never swarm until they have completely filled it. But you must have room enough in your house to keep them always at work. And this you may do by adding box to box; *and they will even then proceed to deposit the comb on the rafters of the house.*

Doct. Parker told me the other day, that he could now take from 50 to 100 wt. of honey comb without disturbing, or even seeing a bee.—We have also a Bee-house in the yard; 3 sides planked up, as other houses are; we have framed a box the whole length, say 14 feet; this box is 18 inches wide and about 12 deep, with holes bored all along the top, over which the hives are placed—the front of the box is full of holes for the egress and ingress of the bees—they directly go up through the box into the hives, fill them and then go to work in the large box, so that you may take the hive off as soon as filled and place another there, so that there is no necessity of killing a bee.—You can fasten the hives on the box, by running a bar of iron or wood through each end of the house and putting a lock on it, so as to prevent robbery.—The lock is placed in the end of the bar, outside of the house.

We have several other plans, or methods of raising bees in this neighborhood—such as small brick buildings, and putting the hives in them, leaving holes in the wall for them to go out and in at, having a door in the back or front, as you please. We also have the hives placed in the top of the porticos or porches boring small holes in the plank for them to go through. In truth, there can be no difficulty in having plenty of honey, if we devote any time to making a house for the bees.

I am, &c. &c. P. N. O'Barnum.

[We congratulate the public, and especially the inhabitants of New York and its vicinity, that a skilful professor of the *Veterinary Art*, Mr Grice, is located in our City, with the highest recommendations of the most eminent medical men, both in England and America.]

[For the New-York Farmer.]

Art. XCVIII.—*Cruelty, to that noble animal,—the Horse.* By Charles Grice, Veterinary Surgeon, corner of Broadway and Pearl-Street, New York.

The Horse, commonly lives to the age of 20 or 25 years, but from the cruelty of *man*, and *art* misapplied, his days are very much diminished, by the early application of *over exertion* and the unremitting continuance of it. His race is frequently begun before he is 3 *years old*—In the Brake, Lunge or Riding school at 4 *years*—*At* 5 *and* 6—his utmost speed is exerted in the summer, on the *trotting course*, as a hackney, *against time*—and in the winter, slipping and sliding about before a sleigh, when forced *without feeling or fear*, by an *inhuman driver*—*At* 7—he is either blind, foundered, or spavined—*At* 8—he gallantly shines in a stage coach, mail stage, or Broadway Omnibus—*At* 9—he is seen to falter and stumble before the oyster or clam cart—*At* 10—completely worn out with disease and inanition—And lastly, he falls a victim to the instrument of the Veterinary Surgeon, and his ruptured old age gains him an *honorable* exit, at the *Corporation Dock!!*

Art. XCIX.—*Smut in Wheat—Answer to* N. W. T. By an Old Farmer. To the Editor of the New-York Farmer.

Sir.—In reply to your correspondent, N. W. T. of Newark New Jersey, in your last months Farmer, I beg leave to state a few particulars on the subject of his inquiries, relative to "*the Weavel and Smut in Wheat.*"

Your correspondent states that "two persons bought seed Wheat of me, in which there had been some smut. In the crop of one, there was a great deal of smut, that of the other was free from it. Was this difference owing to the soil? An answer to these inquiries would be exceptable."

To the latter inquiry, "*was this difference owing to the soil?*" I beg to inform him, and your readers, that I have never known it the case in a single instance, and from many years of practical experience I am enabled to assert that when *seed wheat* is perfectly free from disease, and prepared in a proper manner, previously to its being sown or drilled; that the soil, of whatever nature, or however great the distance, will not produce smutty wheat. The following narrative, may serve to illustrate the fact.

A neighbor of mine, having purchased some very excellent seed wheat, the same was delivered in the farmer's bags of whom he had bought the wheat, with a promise that he, the purchaser, would return the bags, immediately the grain was sown or deposited by the drill. My neighbor complied with this request, and having drilled about half the quantity, from those bags in which he had received the wheat; he took the opportunity on the following day, which day had been *very wet* and *unfavorable* for *drilling the remainder*, to empty those bags, in order they might be returned, agreeably to the proposed bargain. Thus, was this *excellently clean*, and till then, unadulterated seed wheat, put into his (the purchaser's) own bags, which before had contained some very *foul* and *diseased smutty wheat*, as he together with his farm servants acknowledged the fact. On the third day the remainder of the wheat, was drilled on the same soil, and in the same field, but not from the *clean bags* of the *seller* of the *seed wheat!*

Now Sir, mark the result at harvest; the clean seed wheat which had been emptied into the farmer's own filthy smutty bags, produced about *one twentieth part of smutty ears;* whereas, from the former day's drilling, not a *single ear* of smutty wheat would be found!

Hence the infectious disease, not only in the *Animal*, but, also in the *Vegetable world.*

Should you consider the foregoing, deserving a corner in your interesting and truly useful publication, I may be induced to continue my correspondence on the subject, of destroying the insect called the Weavel.

Yours respectfully

State of N. Y. May 1831. An Old Farmer.

Art. C.—*Our Neighborhood, or Letters on Horticulture and Natural Phenomena; interspersed with Opinions on Domestic and Moral Economy.* New-York. E. Bliss. 1831. 12 mo. p. 332.

This work is from the pen of Mrs. Griffith, of Carlieshope, who has in former pages of the Farmer, been respectfully noticed as "a patriotic lady of New Jersey." The work has been written, as stated in the preface, with the "hope of exciting a love of horticulture and of rural pursuits, which comprehend in their range a taste for natural science."

The first thing, of course, that arrested our attention, after reading the title page, was the dedication to the

two Horticultural Societies—that of Massachusetts, and that of Pennsylvania; leaving out the one which is immediately in "our neighbourhood." This omission, we presume, must be attributed to the report of the committee of the New-York Horticultural Society, (page 119 vol. 3.) on Mrs. G.'s premium for destroying insects. On the supposition that this is the true cause of the omission, our only object in noticing it, is to embrace the occasion to make some remarks on that liberal spirit which should ever accompany the 'love of horticulture and of rural pursuits.'

The admiration of plants being common to the whole race of our fellow creatures, their abundance and quality being the principal sustenance of the nations of the earth, and the cultivation and love of them being congenial to our nature, it is expected that all who enter the portals of Flora and Pomona will leave behind them those feelings that are apt, in other pursuits, to agitate the breasts of men, and consider themselves as dedicated to the charms of nature, and to truth, which is reflected to our mental vision as gently as falls the dew on flowers. No themes of politics or religion that are not as generally assented to as are the products of the vegetable kingdom adapted to the wants of man, can with the least propriety become the subjects of discussion. It is not incongruous but perfectly consistent and harmonious, to see those engaged in opposite party strifes, to walk arm and arm amidst the parterres, and those who worship at different altars, to recline under the same bower and pluck fruit from the same branch. All the improvements made, and all the knowledge acquired, being designed, like plants, to be spread over the whole face of the earth, discussions should be open and frank, and interchange of thought free and unreserved. All propositions, and all exertions for the improvement of horticulture, imply a patriotic spirit of the widest and most liberal kind, and should be met by one in all respects congenial. There will be without doubt difference of opinion, but the pursuit forbids a collision of feeling or of passion.

To the premium proposed by, or eminating from Mrs. Griffith, the New-York Horticultural Society paid respectful attention, and treated the subject with a proper spirit. The committee appointed did not coincide with Mrs. G. and considered the object rather of an Utopian nature. To a liberal mind there is nothing in this that would excite any other feelings than a desire to diffuse more light on the subject, and thus harmonize opinions. As the dedication now is, the dignity and amiableness of the authoress appear to as much disadvantage as does the person of a majestic and beautiful lady viewed through a medium that both diminishes and distorts the object. The work should have been unobjectionable in its topics, and the dedication to all the Horticultural Societies in the United States.

We regret that the writer has introduced religious subjects of a sectarian nature. Works on 'horticulture and natural phenomena' should point out to those of all denominations, an altar on which they can unitedly pour out oblations, and cause a volume of universal praise to ascend to Him who spread out the heavens and beautified the earth. The introduction of sectarian topics into works on natural history, tends either to array one denomination against another, or to create a repugnance to these studies and pursuits: effects which have long existed, and which have very considerably retarded the general cultivation of a taste for natural science. There exists far and wide, a vague impression in the minds of good and scrupulous people, that most works on natural history contain doctrines that more or less directly militate against their religious sentiments: hence the distaste for the study itself; but happily for the present age, the belief is rapidly gaining ground, that the Philosophy of nature the more it is understood the more it harmonizes with the highest good and destiny of man. Let this impression universally spread; let our works on horticulture give to all our neighbors a cheerful invitation to our bowers, where they can see and study the varied productions of the bountiful earth—an emblem of the Creator's goodness.; let every parent in presenting to his children a book on horticulture, be enabled to say, here is *nature displayed*. We apprehend that it does not belong to *us* to point out wherein her arguments in support of the "immoral tendency" of ladies taking part in the support of missionaries, are futile and falacious, for then we should be entering on sectarian ground. There are other more appropriate publications for the agitation and settlement of this subject. If the book in all its parts, becomes the favorite of our horticultural societies, as it otherwise should and might have been, it will withdraw influence five times greater than that which it will add.

Mrs. G. has in such a masterly and pleasing manner, combined with fictitious narration, so many valuable hints on farming and gardening, that no lady or gentleman who has a taste for reading, will find it either tedious or valueless; but on the contrary very amusing and useful. We shall now give some extracts from the work.

In the following paragraphs we think the authoress, (who by the by, figures in the book as one of those cleverest of mortals—a batchelor,) has made "short cuts to the forbidden line" of female modesty, in her compliment to all those who have written on the vine.

"What volumes have been written on the subject of the vine!—and yet we are no nearer the true mode of raising grapes than we were before a line was written. There are certain things, about which there can be no mistake. Give a cabbage a good deep soil, and it will never disappoint us; do what we will with a grape-vine, it is subject to so many casualties, that we can only expect a crop once in six years. I find that in the middle states the grapes which succeed best are the yellow, amber-coloured, or golden chasselas. It may be known as soon as the tender leaves put out at the extremities, they being of a copper or deep fawn colour. The next best is the black cluster—a small, tight-bunched grape. The extremities of the leaves are gray, or sage-coloured white, the under side of which is woolly. Neither of these grapes is subject to mildew; but excess of heat or cold, moisture or dryness, very materially injures the berries.

"Whatever the cause may be, it certainly is a fact, that vines do not fruit well after they are four or five years old, excepting in cities, or in warm, *small* enclosures. When this important truth is known by persons who are accustomed to solve difficulties, we shall learn whether it be within the compass of ordinary skill to remedy the evil. What causes this mildew? This is a secret which is yet undiscovered. As far as my limited observation extends, I ascribe it to obstructed perspiration, and the ascent of too much of the watery particles of the sap. The malady makes

its appearance when a few hot days have been succeeded by cold nights, or when a moist atmosphere has been followed by excessive droughts. Exotic plants suffer very much from the changeableness of our climate; nay, the grapes even of our southern states are very materially injured when transplanted to a colder region. The Isabella grape, for instance, during the long drought of this last summer in the middle and northern states, was both mildewed, and exceedingly sour and worthless. There is a very remarkable circumstance about grapes, which is, that a certain degree of humidity in the atmosphere is necessary to develope the saccharine principle. Whereas in other fruits, such as apples, pears, and peaches, although a drought materially injures the size and aromatic flavor, yet there seems to be a concentration of the *sugary* juices. It would appear therefrom, that the ductile vessels of the vine require a certain quantity of external lubrication to correspond with the rapidity of the circulation of the sap within."

The following contains *some truth*, and is pleasingly narrated.

"But the most provoking part of the whole history is that no one tells the truth about grapes. I allude as well to those persons who raise plants for sale, as to those who pride themselves on great horticultural knowledge, and cultivate them for pleasure. I am perfectly amazed at the reluctance which is felt by almost every man to acknowledge that his grapes are mildewed. I have seen men, of the strictest integrity in ordinary matters, so mortified at the failure of a crop, that they have resorted to every species of prevarication to deceive. I went with Dr. Bentley one day in September, to see a neighbor of Mr. Grant, who has a fine grapery, and who prides himself upon his knowledge of the art of culture. We went in unexpectedly, and at a back gate too, and there we caught our worthy friend with a basket on his arm filled with mildewed grapes!

"We were well aware of his sensibilities, so we did not cast an eye on the basket, which he quickly deposited in a root house, muttering something indistinctly about gathering grapes for a sick friend. Notwithstanding that nearly half a bushel had been cut off, enough still remained to show that mildew had been very busy there. Whenever we came to one of these blighted bunches, if he could not nip it off and throw it over the fence unobserved, he would say, "a bunch or two slightly affected, as this is, does not injure the vine: I think myself very fortunate in having escaped so well." And when I observed that the leaves of the vine were seriously injured this summer by the insect called the vine-fretter, he shifted the conversation by taking us to a favorite vine near his house, which being in its fourth year was in full bearing and was really beautiful. Here his pleasure was extreme, for he could breathe freely while we regaled on the delicious fruit which was a white Lisbon. There was no mildew, no vine-fretter, no curculio, no rot of any kind, and we could admire both the beauty of the grape and the liberality of our host, who cut off bunch after bunch with greater pleasure than he abstracted those which were mildewed.

"Mr. Thorn trims his grapes after the French mode—two buds this year, four the next, and so on. I shall follow young Haywood's mode, for this year, at least; and if I do not succeed, then I must give up the culture of grapes. The approved mode, here, is to plant the vines six feet apart each way, if for the vineyard, or if for a walk, five feet is not thought to be too near together. One thing I was instructed in and that is quite essential. This is, never to put a grape-vine, or any plant by a post. In a few years the post rots and the vine or plant will be injured by the process of putting in another one."

The following directions for charring posts appear deserving of attention.

"The proper time for felling trees for posts or timber, is in August. Whatever is thus cut should be left to season for a year and then taken to the saw-mill. When sawed in suitable pieces, each piece should be charred at the bottom just so far as it is to be sunk in the ground. Posts, cut and charred in this way, will last for twenty years; but unless the wood is cut in August, and seasoned for a year in some dry place, it is worse than useless to char them. It has been ascertained that when unseasoned timber is charred, the rot takes place much sooner than if left without charring. The timber from full grown trees lasts longer than that from young saplings; even the limb of an old white oak will be of longer duration as as a post, than one of the same size of a young one."

The construction of the barn on the writer's farm cannot fail of being read with interest by farmers.

"Luckily for you I have an immense barn made entirely of stone, with a slate roof. It is certainly one of the most complete things I ever saw. It stands on the brow of a knoll, or rather of a slope. The cellar of the stable part of the barn is forty feet by thirty, and about eight feet in height, over this cellar are the horses and cows' stalls, which are arranged on each side of the stable. There is room for eight horses and ten cows at present, but by a little ingenuity, and Mr. Grant has already suggested the plan, there can be room made for four horses and four cows more, as the space in the centre is a mere waste. Each stall has one moveable plank at the lower end, which when raised, allows all the litter of the stable to be shovelled down to the cellar. You can easily imagine how clean and wholesome a stall can be kept in this way, and how much more manure is gathered by this saving process. Both horse and cow stables should be built over a cellar of this kind, that the animals may be kept from breathing a foul air. Many of the diseases of cattle proceed from the impure atmosphere of stables."

"I took out of the cellar, soon after I bought the farm, at least one hundred wagon loads of rotted manure. It had lain there a long time, the owner not caring to disturb it. I shall in future take out the manure every spring and fall. The barn, or rather that part of the barn which is appropriated to hay and grain, is of the same dimensions, with a cellar also, under the whole, divided from the other by a strong stone partition. This cellar is for calves, and wagons, and wood-sleds, &c. A wide bridge, or causey, from the barn-door behind to the level below, makes an easy road for ascending and descending wagons. Nothing can be easier than to get at the manure below, for the floor, which is of stone, is on a line or level with the ground, and by backing in the wagons they can be easily filled. With the proposed alterations there will be room enough for all the cattle that we shall both want; and as the barn stand on the division line, it will be equally convenient."

Her remarks on the peach show the frequency and extent of her observations.

"In the disease called the yellows, the roots of the peach tree remained perfectly healthy; and in seven cases out of ten, when a diseased tree was removed to a moist soil, the trees recovered. I am convinced that the roots of a tree can be healthy, while the branches are unsound; but I never saw the body of a tree look healthy, and have unsound roots. The peach tree very soon exhausts the soil, for it abstracts nourishment from it with greater rapidity than almost any other tree; it would be an easy matter, therefore, to prolong its life, and ensure its health by furnishing it with a sufficiency of food, were not the fact known to us that too much manure is injurious, unless we can supply it abundantly with water. During what is called a wet season here, the peach trees revive from a very languid state; and were the moist summers to continue, this fruit tree would live to a good age. You have no idea of the rapid growth of a peach tree, and how soon, when the trees are fifteen feet apart, the roots meet one another. Mr. Thorn bared the roots of two trees for my inspection, which were fifteen feet assunder, and I saw that they had actually met. Now this fact proves that we do very wrong in ploughing deep among peach trees, for the roots are seriously injured by it. A bruised root affects the health of a tree; but if we cut the root with a knife, no harm ensues, unless we cut off too much, or too many roots. It is just the case with the tendon of an animal; if we wound it, we often destroy life; but if we separate it entirely, the injury we do is only local."

In case another edition is called for, we hope the writer will rescind that part in reference to female agency in support of missionaries. We are of the opinion that the interest and spirit of horticulture require its omission. If she is anxious to spread these sentiments before the public, there are other and more appropriate mediums through which she can convey them. Let Mrs. Griffith adhere strictly to 'horticulture and natural phenomena,' and we augur that she will rise and become one of those who will long continue to be the pride and boast of her country.

[For the New-York Farmer.]

ART. CI.—*Weevil in Wheat.—Answer to N. W. T.*

MR. EDITOR,—For the present consideration, and to encourage the further researches and obsevations, of your correspondent, N. W. T., I beg leave to recommend the perusal of the following, taken from the American Farmer. I would premise, however, as far as my experience and that of my father's qualify me to advance an opinion, that if wheat, on being threshed, is properly aired and kept spread thin in a dry place, no material injury will be effected by the weevil.

AN OLD FARMER.

As early as convenient after harvest in 1825, I got out some wheat for present use, and put it away on a plank floor in an upper room over the kitchen. During August, I heard much complaint among my neighbors of the ravages of the weevil in their wheat, and was induced to examine my own. I found that which had been cleaned out much weevil eaten, while that in the chaff, either in the barn or stack, was much less affected. I recollected that some, though very few, were to be seen when the wheat was got out. The extraordinary, and so greatly disproportionate increase of the fly in the cleaned wheat, set my mind at work to find out, if possible, the cause of that difference.

On the 22d of August, by the use of the glass, I discovered what I had never heard of before, the eggs, or nits, of the grey weevil fly on many grains of wheat. They were generally of a pale redish color, somewhat brighter than the color of the wheat, though some of them were nearly white. These eggs were mostly deposited in the crease or indenture on one side of the grain, and adhered with a slight degree of tenacity. A number of these grains with eggs or nits on them, were selected and put away in a saucer. They were examined each day, but no perceivable change until the 27th, when instead of the transparency which they had exhibited, they appeared to consist only of a coat or web of the thinnest conceivable texture. On pressing them they did not crack as before. On closer examination a number of small worms were seen, remarkably active, some on the grains of wheat, and some on the saucer. On the 29th there was scarce a nit to be seen in its original transparent state, so that all the eggs or nits on the grains which had been put in the saucer, had been hatched in about three days. I entertained no doubt that the little worm had proceeded from the egg. And from the frequent attempts which it appeared to make to penetrate the grain, by its assiduous exertion at one spot, I was led to the opinion that it did actually eat its way through the bran into the grain.

I was then desirous to ascertain whether the eggs or nits I had seen, were really those of the weevil fly. To this end, I confined three of those flies in a glass tumbler, by covering it with a book, and put several grains of wheat in with them. I continued to notice them daily, till about the sixth day, when I found that two of the flies were gone, having been let out as I supposed by the children, and one was dead. On examination, I found three different bunches of nits on the bottom of the glass, precisely like those I had seen on the wheat. By the help of the magnifying glass I could count them, there were upwards of twenty eggs in each bunch, the eggs in each several bunch adhering together. This experiment I again repeated, with the same result, except that the number of eggs were fewer.

During my attention to this subject, I became enabled to pick out, almost unerringly, the grains of wheat that had worms, however small. I found them from the smallest size, scarcely larger than those I had seen in the saucer, up to the size of the maggot just before going into the chrysalis state. I also could discern the hole, through which according to the opinion of some, the parent fly had deposited the young in the grain, or through which, as was my own opinion, the worm it self had entered. This hole was not larger than would admit the point of a very small needle— too small for the naked eye of most persons. The grains impregnated, I found vastly more numerous among the cleaned wheat, than among the unthreshed.

On the unthreshed wheat I found the nits on the heads, generally on the inside of the outer coat of the chaff, sometimes on the outside, rarely on the grain. It was discovered at the same time that the weevil was flying about the Indian corn in the crib,

I found on examination much of the corn perforated as the grains of wheat are, when the weevil has left them. It was easy also to distinguish the grains that contained worms in the maggot or chrysalis state. I also saw in many instances the small hole, though which the worm had entered. The eggs or nits precisely similar in appearance, I found also, generally on the cob, where some grains had been shattered off. In both the wheat and the corn, the hole was generally in that softer part of the grain from which the germ or bud proceeds—the part most difficult to be got at by a parent fly supposed to impregnate the grain.

These facts coming under my observation, when taken in connexion with one of general notoriety, to wit, that the progress, or multiplication of the weevil, is in an increased ratio during the season of its continuance, when not arrested by the hand of the husbandman, go in my humble judgment to prove, that the weevil reproduces its own species in short periods during the warm season—and always most, where they have free access to the grain. To establish my position beyond a doubt, there is only one link wanting in the chain of facts stated, and that is, the actual entry of the young worm hatched from the nit, into the grain. This I did not witness. The extreme smallness of the object, and the weariness to the eye, and to the neck indeed, by a long application of the glass, prevented me from satisfying myself on that point. Yet from the intense exertions of one of those little creatures, at one spot, and his repeated return to it, I fully embraced the opinion that the worm, the produce of the nit, does thus eat his way through the bran into the grain. If not, these worms must produce some other insect, the immensity of whose numbers about the barn and stack yard, would have attracted attention.

The importance attached to this theory, if it be the true one, consists in the conviction on the mind of the farmer, that when reaped, his wheat is not materially injured—and that by due vigilance he may secure it from the ravages of its greatest enemy, the weevil.—Three modes of preserving it, obviously present themselves—first, to place it in a situation *to exclude the fly, that is on the wing*, thereby to prevent the deposite of eggs. Secondly, by the application of heat, so as to destroy the worms in, and the eggs on, the wheat—or thirdly, to keep it in a situation too cool to admit of the hatching the eggs, and the growth of the worm.

I am, very respectfully, T. S.

ART. CII.—*Dale's New Hybrid Turnip.* By MR. CHARLES LAWSON. [From the Edinburgh Quarterly Journal of Agriculture, No. 10, for 1831.]

There are many varieties of the turnip in cultivation, which are more or less held in esteem, according to their supposed qualities, the nature of the soil in which they are to be grown, and other circumstances; but those in most general use are, the White Globe, the Red-Top Yellow Bullock, the Green-Top Yellow Bullock, and the Swedish or Ruta Baga. The White Globe grows to the largest size, arrives soonest at maturity, and decays earliest in the season; the Yellows are intermediate between the Globe and the Swedish in their properties; and the Swedish is smallest in size, is latest in arriving at maturity, and often does not decay, till, in the advanced state of the following spring, the plant loses its nutritive properties by pushing out a flower-stem; hence the Swedish is well adapted and chiefly employed for spring feeding. The Swedish Turnip possesses the greatest nutritive powers, and the largest of this variety yields more nourishment in proportion than the middle-sized ones; while the Globe, which attains the greatest bulk, contains the least nutritive matter, and the larger kinds proportionally than the middling-sized ones of the same variety.

New varieties or hybrids of turnips are obtained by cross-impregnation. Thus, when two varieties are planted alternately or promiscuously in a plot of ground, when they come into flower, the pollen is wafted by the wind indiscriminately over the whole, or carried from one plant to another by insects, when they are in quest of the sweets of the nectary, and applied to the stigmata. But though the means of producing new varieties are simple and easily accomplished, little improvement in this respect has been made in the varieties now generally used in field culture.

In all cases of turnip seeds going through my hands in the course of a season, I keep specimens, which are sown at the proper period in drills in my nursery. This is done for the purpose of examining the progress of the plants and the development of their roots during the season; it also enables me to ascertain the correctness of the different stocks of seeds, and to judge of the superiority of one variety over another.

Two years ago my attention was particularly attracted to the produce of the sample of a hybrid or doubly-impregnated sort, the seed of which I received from Mr. Robert Dale, a very intelligent farmer at Libberton West Mains, near Edinburgh. It attracted my attention, first, on account of its early growth and maturation; secondly, its fine shape, as may be seen in the figure; thirdly, by the great size to which it attained, in comparison with any sort under similar treatment; and, lastly, by its standing the winter equally well with any other turnip except the Swedish.

And conceiving that the great desideratum in the selection of a proper variety of the turnip, is to obtain the greatest possible weight on a given space and at a given expense of manure, this variety seems to be

more adapted to this end than any other sort hitherto introduced.

The manner in which it was obtained by Mr. Dale, was the following: In the year 1822 or 1823, he got a few ounces of seed of a new hybrid turnip from James Shireff, Esq. of Bastleridge in Berwickshire. This, Mr. Dale sowed, and he found the produce to resemble the Swedish in shape, but it had too few of the superior properties of that variety. He, therefore, picked out such as had most of the yellow appearance, and planted them along with some of the best Swedish which he could find. This he continued doing for four successive years; and, since that period, he has selected the best roots of the double impregnated kind which he could find for raising seed, till they have attained the quality which they now possess.

The manner in which this variety has been obtained is not according to the nice rules which horticulturists would adopt, because, the hybrids were always planted along with the Swedish for producing seed, and the seed collected promiscuously, that part of the seed which was produced from the Swedish would be much more nearly allied to that variety than the seed of the hybrids. But in this, as in many other instances of improving plants, the point is often attained more from accidental causes than from the adoption of the rules laid down by scientific cultivators. And, although all the hybrids may not stand in the same relation to the primitive root, the circumstance of the raising the seed being now performed solely by the hybrids themselves, without the assistance as formerly, of the Swedish, will always have the tendency to assist in modifying and correcting any irregularity that may exist. Indeed, judging from the appearance of the present stock, there is nothing which indicates any important consequences to this irregularity in the manner of obtaining the hybrids.

The following comparison will show in what respect this hybrid is superior or differs from the turnips at present in cultivation:—

FOR EARLY USE,

White Globe, White Tankard, Pomeranian Globe, Hungarian Globe. The hybrid is equal in size to any of these, is closer in the texture, and is as early.

TO SUCCEED THE ABOVE,

Red Norfolk, Green Norfolk, White Norfolk, Green Globe, Red Tankard, Yellow Globe, Bullock's Heart. The hybrid is superior in size, in texture, and in shape, to all of these.

TO FOLLOW THESE,

Purple-top Yellow Bullock, Green-top Yellow Bullock, Tankard Yellow. The hybrid is superior in size, and, in so far as it has been tried, it stands the winter as well.

FOR LATE USE,

Purple-top Swedish, Green-top Swedish. The hybrid is superior in size, but shoots to flower earlier in spring, and is not so hardy.

This hybrid, or doubly-impregnated turnip, therefore, appears to possess properties in general superior to those varieties which have been enumerated above. It is equal to, or surpasses the yellow and the other sorts above it, and is only excelled by the Swedish, in the latter being more hardy, and later in spring in running to a flower-stem. It is now generally known by the name of Dale's Turnip, or Dale's hybrid.

The facts which I have stated will, I trust, be considered in this respect interesting, that they show an easy method by which intelligent agriculturists may increase or improve the varieties of the plants which they cultivate.

Seeds of the above turnip have been furnished to Messrs. G. Thorburn and Sons, No. 67 Liberty-St. New-York, by Adam Ferguson, Esq. of Scotland, who is now travelling in the U. States with a view to obtain information on the state of our agriculture and horticulture.

The seeds are also for sale at the seed store of Mr. Wm. Thorburn, 347 North Market-St. Albany.

[The following is taken from the Boston Daily Advertiser. We wish that some of the correspondents of the N. York Farmer would afford us regular accounts of the different seasons in various parts of the country. It would be a pleasant and easy task for them.]

ART. CIII.—*The past Winter and the present Spring in the vicinity of Boston.*

MR HALE—For very many years, I have been in the habit of sending to your paper the state of the seasons. The last two years, I omitted it, because the same information was communicated to the New England Farmer; but finding that some persons have complained of the omission because they read *your* paper, and do not see the N. E. Farmer, I am induced to resume my long continued usage. It is not extraordinary that men, cooped up in the city, should be desirous of knowing what are the prospects of fruit and vegetables for the ensuing year—and there are some philosophical farmers who are desirous of recording the variation of different seasons.

Let me premise, that the past winter was in some respects very extraordinary—so, as to stand alone, when compared with the winters of the last twenty five years. No frost entered the ground to the depth of three inches, before the first great snow, which covered the earth like a warm blanket. There was no moment during the winter in which you could carry heavy loads over wet meadows.—The effect of this covering of snow was very curious. Plants which are killed in ordinary seasons, survived in perfect vigor. The effect upon grasses of all description was favourable, and I presume equally so upon winter grain. The result was, that the moment the snow was removed, the grass started with undiminished vigor, and although the months of April and May have been cold, yet the grass is more forward than ever I have known it to be at this season. The same causes have been favorable to the early ascent of the sap of fruit trees. The small fibrous roots have not been bound in frost, and the season is very favorable to fruits, as the following comparison will show.

First blossoming of Cherries.

In 1813,	May 10.	In 1826,	May 4.
1815,	May 10.	1827,	April 21.
1816,	May 6.	1828,	May 1.
1822,	May 1.	1829,	May 9.
1823,	May 7.	1830,	April 28.
1825,	April 25.	1831,	April 29.

Pears opening their blossoms.

1823, May 3d—1824, May 4th—1825, April 30th—1829, May 14th—1831, May 1st.

Apples opening Blossoms.

1823, May 19th—1824, May 13th—1825, May 8th—1829, May 15th—1831, May 6th.

I have not extended my comparison in this publication as far as I have sometimes done, though I have done enough to show that it is one of the earliest seasons, and I can add that it is earlier (on the *whole)* than any season for seventeen years.

I will merely add, for the satisfaction of the lovers of fine fruits, that the Peaches have survived the winter, but they suffered from the two last years over abundant crops. Yet there are blossoms enough on them, and the fruit, if the season should be warm, will probably be as much superior in quality as it will be deficient in quantity.

I have never known a more universal and vigorous bloom in the Pears.

The Apples cannot be so well ascertained, but as the crop last year was superabundant, it is almost certain that it will be very moderate this year.

Cherries, Raspberries, Strawberries, and all smaller fruits, promise most abundant harvests.

A Roxbury Farmer.

Art. CIV.—*Miscellaneous and Scientific Items.* By S. L. Mitchill M. D. To the Editor of the New-York Farmer.

Dear Sir,—I gather from papers I have lately received, materials for a few paragraphs, which I place at your disposal.

The Horticultural Society of Massachusetts appears to be in a flourishing condition, under the superintendence of President Dearborn: their diploma which is large and ample, is designed with much taste, and executed with great skill: if properly framed, it would make an ornamental piece of furniture.

The Report made by the regents of the University, to the legislature under date of March 1st 1831, is unusually elaborate. Besides the ordinary topics of academies and colleges that they usually present, there is on the present occasion, a great body of other information. In March 1825, they issued a circular-epistle to the academies throughout the state, calling the attention of the officers and managers of each, to the collection of meteorological facts.

A considerable number of these institutions has acted in obedience to this request, and made returns accordingly. An abstract of these, has been made out, and laid before the representatives of the people.—Upwards of forty academies have forwarded reports. Observations have been particularly directed to the following points: 1 The highest and lowest degrees of the thermometer, with its range and mean temperature. 2 Prevailing winds and and the state of the weather. In the greater number of academies the observations where continued during the year. From those are reduced with considerable labor a recapitulation with various results, exhibited in five tabular forms. These are followed by lists of miscellaneous deductions and remarks, in form of an instructive *Calendar of Flora.* This is succeeded by an important list of aurora borealis, halos, igneous meteors. 3 The temperature of wells, the remarks on the barometer, the remarks on the atmosphere, rivers, lakes and canals, increase the variety and value of the matter. It is believed that the public is deeply indepted to the zeal and enterprize of Simeon Dewitt, the Chancellor of the University and Surveyor general of the state, for the important information embodied in this communication to the Senate.

Next follows a catalogue of the plants growing spontaneously in the vicinity of North Salem Academy in West Chester County. The author is Samuel B. Mead. He has enumerated seven hundred and forty five species, and given a number of explanatory remarks. He thinks the enumeration though so extensive, is by no means complete. He has made a good beginning and set an excellent example.

The latitude, longitude and elevation of a number of places between Rockriver and Erasmus Hall, and from Lansingburg to Rochester, as revised by Joseph Henry, afford a very interesting tabular view of the subjects.

The French Societies of Universal Stastistics seems to be in very successful progression: among other publications made by this body of savans, is a splendid diploma highly ornamented, for which they demand from their nonorary members twenty-five francs, and larger contributions from the other classes of members.

The founder is Cesar Moreau, who is also Director of the board of Administration. Its protector is King Louis Philip, I.

New York May 19, 1831.

Art. CV.—*Proceedings of the New York Horticultural Society.* [Continued from page 98.]

April 26—Mr. Neale presented 18 varieties of Early Tulips, very handsome, Phlox stolonifera, and Alyssum saxatile.

Dr. Ireland, a specimen of Urtica.

Several bottles of cider were received from Messrs. S. & F. Lyon of Sawpitts,—manufactured from the Crab-apple, without additions of any kind—nearly as transparent and colorless as water, and of a very pleasant taste. The body was not considered sufficient to keep well through the summer. The color was too light for that which is peculiar to cider, and which is generally considered requisite to command the highest price. On the whole, the manufacturers deserve credit for producing a beautiful and superior article.

May 3.—Mr. Neale presented a seedling Auricula with six pips, very beautiful, Rosa sanguinea, and a perennial Candituft, Iberis.

Mr. Hyslop, gardener to N. Prime Esq., 8 edible Mushrooms, 3 of which measuring 7 inches diameter, and a brace of Cucumbers 8 inches in length.

Mr. A. Smith, a bunch of Sea Kale, sweet, tender, and of a continuous leaf from the root; a beautiful specimen of double flowering Cherry, double flowering Apple, an Abonis vernalis, and a Genista linifolia.

Dr. Mc Vicar, a beautiful seedling Cowslip, with 22 pips. Dr. Ireland, a Peonia tenuifolia. Mr. Still, a bunch of Sea Kale, handsomely blanched, 13 inches in length, too much piped, and rather bitter; a brace of large Cucumbers, 7½ inches in circumference.

May 10.—Mr. Neale presented a handsome Ranunculus, and 1 doz. stalks of Rhubarb, Rheum hybridum, 16 inches in length, and very large.

May 17.—Mr. Hamilton presented a Ranunculus aconitifolius, Siberian Lilac, white and pink Dodecatheon Media, white Florentine Iris, two very pretty seedling Polyanthus, Phlox divaricata.

Mr. Neale exhibited 18 new varieties of Tulips broken from the breeders, consisting of roses, violets and bizards.

A very beautiful Mexican Air Plant was presented from Miss Julia Pardo.

May 24.—Mr. Hogg presented a very splendid collection of cut flowers and plants in pots. Among them were purple Noisette Rose, Rosa Adamsonia, a seedling R. sanguinea, R. Hamiltonia, tea scented Rose, 4 kinds of Scotch Roses, a bud of the double Yellow Rose, Belle de Vibert, Anemone thalictroides, Viola canadensis, Phlox pilosa, Verbena multifida, Sedum ternatum, Diosma ericoides, Saxifraga umbrosa, Cineraria cruenta, Azalea nudiflora, Tradescantia Virginica, var, alba and rubra. Narcissus poeticus pleno, Dianthus hybridum, Phlomis fruticosa, Cactus speciosus, a seedling Papaver bracteatum, seven species of Iris, a double flowering Cherry, Anchusa orientalis, a new plant from Russia affordiug nectary to bees and humming-birds, Solea concolor, Celsea Linnearis a new plant, Jesminum revolutum, likely to be a hardy plant, Eeeremocarpus scaber, Stylidium adnatum a curious plant from Botany Bay, and six new varieties of beautiful Geraniums.

A splendid monthly China Rose in pot, presented by Mr. Bennett.

ART. CVI.—*Proceedings of the Rensselaer County Horticultural Society.*

The Troy Sentinel gives the follswing account of the third stated exhibition of this Society in that city. We understand that good effects are already apparent from the spirit which this society has excited.

May, 10. Mr. Alex. Walsh of Lansingburgh exhibited six very fine stalks of celery and lettuce, which had been preserved in the open ground through the winter.

Mr. David C. Norton, of the same town, presented six full grown cucumbers, of two varieties. Some of the long kind were nine inches in length. Mr. Norton also presented two bunches of good sized radishes, raised in the open ground.

A great variety of beautiful and splendid flowers were exhibited.

Mr. G. B. Warren of Troy, exhibited several fine varieties of tulip, large double hyacinths, moss pinks and violets.

Gerritt Peebles, of Lansingburg, elegant narcissuses, snow flake and grape hyacinths, and several beautiful varieties of polyanthus.

Mr. Alex. Walsh, of Lansingburgh, a thumb aloe, in full bloom, two varieties of periwincle, a variety of fine hyacynths and tulips, ragged robin, and other flowers in full bloom.

Mr. John Mc Coun, of this city exhibited fine hyacinths, tulips, and narcissuses.

Mr. Albert P. Hart, of this city, a superb collection of tulips and other flowers in full bloom.

ART. CVI.—*Miscellaneous, Original and Selected.*

Important Improvement in the Production of Cream.—For about twelve months past Mr. Samuel Davis of this city has been trying experiments on the use of milk pans made of zinc as a substitute for those of tin or other materials. His experiments, last summer, on Long Island and New Jersey, were highly satisfactory. He and other gentlemen interested, have repeated them this spring with results equally favorable. They have ascertained that milk in zinc pans will keep sweet four or five hours longer than in those of other materials, and consequently afford a longer time for the cream to rise.

On Wednesday the 25 inst. we saw three tin and three zinc pans having in each nine quarts of milk. The milk, which was just from the cows, had been put in on the Monday previous at three o'clock in the afternoon. On Wednesday at nine in the morning, when we were present at the skimming, the milk in the tin pans had become mostly coagulated or loppard; that in the zinc pans but slightly sour. At two o'clock this latter afforded a second skimming. The result of the churning was that the cream from the zinc produced 3 lbs. 5 oz. and that from the tin only 2 lbs. 5½ oz. Care was taken to have the experiments correct and fair. In addition to the extra quantity, the butter from the zinc vessels is thought to be sweeter.

We do not know on what principle to account for this effect, except it may be that of galvanic agency. The importance of the improvement will at once be perceived by every one. The pans are very durable, not likely to rust or oxidize, and at a price very little higher than those of tin.

Pans and kettles of every description are manufactured by the proprietors of the patent, Messrs. John Westfield, & Co. No. 162 Mott-Street, New-York. We hope farmers will lose no time in furnishing themselves with one or more pans to try the experiments.

Chess, Bromus secalinus.—MR. EDITOR,—An opinion prevails to a very considerable extent among agriculturists in this part of the state, to which I beg leave to direct your attention, for the purpose of acertaining its correctness. It is as follows. Chess, Bromus secalinus, is a production from wheat and rye, and not from its own seed. The mere statements of it seems to carry its own refutation: but there are many who are very strenuous in its support, who consider it as a well established fact.

No author that I have consulted gives any facts to prove either side of the question. Professor Eaton's opinion, in his Manuel of Botany, 4th edition, p. 238, respecting its origin, seems to be built on mere supposition. If you or any of your correspondents can throw any light upon this subject, it would be very acceptable to your readers at the west. C. F.

Palmyra, Wayne County, May 14th. 1831.

Horticultural Celebrations.—MR. EDITOR. I hope the Horticultural Societies in the middle States, will as far as it is practicable, have their anniversaries at such times and in such rotations that not only delegates may be sent, but that the members generally may embrace the opportunity to visit them. Properly managed these rural fetes may become objects of much interest, and sources of much pleasure and refinement. I hope the New-York Society will take some steps towards an arrangement. ALBANY.

Proceedings of Horticultural Societies.—We shall expect to see in the New-York Farmer an abstract of the proceedings of the different Horticultural Societies throughout the country. We hope those interested, and particularly the secretaries, will not fail of sending you regular and full accounts.

LANSINGBURGH.

Pendulum Churns.—We should suppose one of the easiest hand churns in use, is that operating by a pendulum. A child of eight or ten years old can sit down and move a double churn without difficulty, during the time requisite to produce butter. A patent has been recently taken out by persons in this city, and extensive sales made. It is, if we are not greatly mistaken, an old invention.

Culture of Indian Corn.—A writer in the N. E. Farmer, recommends the planting of potatos on newly turned green sward rather than of corn. The latter is less liable to be injured by worms if planted after potatos. He, as well as others, approves of dropping the seed corn close together in the hill. When thus planted the stalks are not apt to throw out suckers; they produce greater crops and are more easily hoed. This is one of the many subjects on which farmers should make close observations.

Hilling Corn—Erastus Ware, of Salem, Mass. says an excellent field of corn, which obtained a premium, that it was hoed three times, but not hilled, as has been customary; and upon a comparison of that with a small piece which was in some degree hilled, after a severe gale, he is satisfied that no advantage is gained by hilling, as was formerly practised.—His opinion is that there is no benefit to be derived by hilling corn; and corn raised on a flat surface, when the weeds are destroyed, and the ground kept loose, is by no means so likely to suffer by the drought, or to have its roots impeded in the search after their proper nutriment, as where the ground is drawn up round the stalk in a high and steep hill.

Brighton Market, Monday, May 16.—At Market this day 186 Beef Cattle, 9 pair Working Oxen, 18 Cows and Calves, 160 Sheep, and 70 Swine.

Prices.—Beef Cattle—The Cattle to day were not so good as last Monday, but the same qualities brought a little better prices; we shall quote higher, from $5 to 6, extra at $6 25.

Working Oxen—No sales noticed.

Cows and Calves—We noticed the following sales: $18, 19, 20, 25, 30, 35.

Sheep—A few cosset weathers were taken at about $6, a lot of a thin quality at 2 33 a 2 50.

Swine—We noticed the sale of one lot at 5¼ cts. and one at 5½.—At retail, 5c. for sows, and 6c. for barrows.—*Reported for the Chronicle and Patriot.*

Uses and Benefit of the Acarus, or, as it is commonly called, the Red Spider.—Sir, I have frequently observed, in the spring and summer, beautiful insects of a rich crimson velvet appearance, both in the open air and under glass; and have heard them stigmatised by amateurs, and once by a practical gardener, as "red spiders, the gardener's greatest enemy, &c." I have also had the mortification of witnessing their destruction before I could utter a word in their behalf. Now Sir, I know not whether this insect belongs to the genus Acarus or not; but this I do know, that some of its habits richly entitle it to the appellation of the gardener's *friend*. In the spring of 1828, I observed the under-side of the leaf of a plant of Nerium splendens had a row of Coccus hesperidum attached along one side of the midrib; and, about half way along this row, I observed one of the crimson insect above discribed, apparently feeding upon one of the Coccior scales (which, by means of a botanical glass, I convinced myself was actually the case); indeed, the insect in its rear were become truly scales, the spider having reduced them to mere dry films; and those in front progressively shared the same fate. I took particular pains to ascertain the fact. Since then I have frequently found the Acari not only *assisting* the gardener in the destruction of the scales, but of the green Aphis also.

Indeed, on one occasion, I kept a quantity of the spiders under a bell-glass, with no other food than the Aphises, for several days, upon which they appeared to thrive amazingly; and I afterwards distributed them amongst plants infested by the Aphis, when they recommenced their works of destruction. I therefore venture to plead for insects, the appearence of which gives additional beauty to our plants, and the utility of which I would fain make more generally known. I am, Sir yours, &c.—*William Godsall. Hereford. Louden.*

Thunder Fatal to Goslings. MR. SMITH:—I will inform you of a particular that may be interesting to one branch of medicine, (physiology I believe the doctors call it,) and to natural history. In a late thunder storm the lightning descended in a field, within less than half a mile of my dwelling, and killed two laborers and laid prostrate and injured three more. But the effect in my fowl yard was very remarkable. I had two broods of goslings, one nearly a week old, on the ground, and another, two days, in a basket in a house. At the instant when the thunder fell, which it did with the most astounding force, the woman who had the care of the fowls, happened to be looking upon those in the basket, and saw them, at once, all fall over upon their backs and expire. Those in the yard, half an hour after, were found dead also; a nest of eggs under a goose, then in progress of hatching, were all killed. You may rely on the correctness of this statement. Though goslings are easily raised, and live more than a century, they seem to be endued with nerves of uncommon sensibility, or have systems peculiarly favourable to electric impressions.—*Amer. Farmer.*

Human Bones, the end of Military Glory.—It is estimated that more than a million of bushels of human and inhuman bones were imported last year from the continent of Europe into the port of Hull. The neighborhood of Leipsic, Husterlitz, Waterloo, and of all the places where, during the late bloody war the principal battles were fought, have been swept alike of the bones of the hero and of the horse which he rode. Thus collected from every quarter, they have been shipped to the port of Hull, and hence forwarded to the Yorkshire bone grinders, who have erected steam engines and powerful machinery, for the purpose of reducing them to a granulary state. In this condition they are sent chiefly to Doncaster, one of the largest agricultural markets in that part of the country, and are there sold to the farmers to manure their lands. The oily substance gradually evolving as the bone calcines, make a more substantial manure than almost any other substance—particularly human

bones. It is now ascertained, beyond a doubt, by actual experiment upon an extensive scale, that a dead soldier is a most valuable article of commerce; and for aught we know to the contrary, the good farmers of Yorkshire are, in a great measure, indebted to the bones of their children for their daily bread. It is certainly a singular fact, that Great Britain should have sent out such multitudes of soldiers to fight its battles upon the continent of Europe, and should then imploy their bones as an article of commerce to fatten their soil.—*English paper.*

Sale of Arabian Horses—The four Arab Horses were publicly disposed of on Saturday, the 14th inst. at 12 o'clock, in the Great Area, No. 446 Broadway, agreeably to the notice of Tattersalls.

It is estimated that from two to three thousand gentlemen attended to witness the sale, many of whom expressed their surpriso at the very low prices at which the animals were sold.

No.	1.	Stamboul, (sorrel,)	$ 575
	2.	Kochlani, (chesnut)	450
	3.	Zilcaadi, (sorrel)	430
	4.	Yemen, (grey)	535

We understand that No. 1 was purchased by an order, and will proceed to Kentucky. No. 3 and 4 will remain in New-Jersey. The destination of No. 2 is not known. The purchaser of the grey (Yemen,) in less than twenty minutes after the sale, refused *one thousand dollars* for him, which was offered by a gentleman who could not arrive in time to attend the sale —and orders were in this city, advising the agent not to lose a chance for the selection from the Arabians at from $2700 to $3000.

The horses were all in fine condition, were exhibited to the best advantage, and their general appearance was creditable to the establishment of Tattersalls where they have been kept since their arrival in November last.

Agricultural distress in Ireland—The run upon the Banks of Cork still continues. The annoyance consequent upon this frantic proceeding is felt principally by the dealers in agricultural produce, who have brought their corn and other articles to town for sale, and cannot find purchasers. The Banks are about as affected for the demand for gold, as they are by the weather—not more certainly; but the effects of the demand upon general business are at this moment peculiarly pernicious—and if continued but a few days longer, will be ruinous to multitudes. It was melancholy to see the country people obliged, in wet and cold, to take back their cart loads of corn yestorday —many of them to very remote distances. Some few able to obtain storage in town; while such others as had friends in the neighbourhood, applied to them for shelter even for a day.—*Cork Constitution of Saturday.*

A Farm for Sailors.—We have been informed, that "the Trustees of the Sailors Snug Harbour" have just purchased, for ten thousand dollars, the farm of Mr. Houseman, on Staten Island, as a location for that establishment; and that they are immediately to erect the necessary accommodations for fifty superannuated seamen. The will of the late Mr. Randall obliges the trustees to commence with this number, which will be added to as their funds increase. The farm, consisting of about 130 acres, is situated near the entrance of the Kills; the site selected for the buildings commands a full view of the city and harbour of New-York, the town of Brooklyn, and every sail that enters or leaves the port.

Botanizing.—At this season of the year, when Flora wears her Spring dress, our young friends are attracted to the woods in the vicinity of Conestoga, in search of flowers, to adorn the mantle or the garden. To go a *Maying* is the heighth of pleasure. Air, exercise, and the prospect of success, gives unusual zest to the occupation.—*Lancaster, (Penn.) Miscellany.*

Dodecatheon Meadia, the American cow slip and hawksbill, is profusely scattered over the high banks of the Conestoga. The roots spread rapidly by culture, and by transplanting them in the garden in the ensuing spring, the cultivator will be repaid by their beautiful purple flowers. *Ib.*

Fumaria Alba.—White Fumatory, Miller Flower, or Breeches Flower, grows on the same place, and at the same time. It has a delicate little bulbous root, the foliage very pretty, with handsome white showy flowers. The roots bear removal, and reward the gardener for his care by an early bloom in the ensuing spring. *Ib.*

Lease of a Farm for One Year.—If a lease be made for the term of a year and the tenant sows the land with spring grain, he has no right to the crop, for it must be cut after the term is out.—*Law Intelligencer.*

THE ROSE OF MAY.

I said the flower would bloom no more,
That wither'd yesterday;
That morning dews would ne'er restore
My lovely rose of May.
The future was too cold a thing
In my sweet dream to be;
The present rose, the present spring,
Are all of life to me.

I do remember well my grief,
When died my flower—and then
My joy, when time brought, leaf by leaf,
As sweet a flower again.
And then I said, "Farewell, despair,
Thou art no guest for me;
What e'er I lose of bright or fair,
I hope again to see."

Alas! I've often wept since then,
And death has robb'd my bowers;
But even amidst the griefs of men,
I've comfort found in flowers.
For, if the bloom of love be brief,
And if Fame's crown be riven,
I would not mourn life's fading leaf,
But look for spring in heaven.—*Caruc.*

☞ All farmers and gardeners who wish to foster a public spirit for the improvement of the productions of the soil are invited to send to the exhibition-room of the New-York Horticultural Society, plants, culinary vegetables, fruits, and seeds, that may be considered valuable for distribution, or are esteemed excellent for their qualities, size, or circumstances under which they were grown. If most convenient they may be left at the office of the Farmer, or at 350 Broadway, whence they will be taken to the Society's room.

[For the New-York Farmer.]

ART. CVIII.—WILSON'S ORNITHOLOGY.—*The Song Sparrow,—and the Bay-winged Bunting.* [Continued from page 87.]

The house sparrow of Europe has an unpopular character. In some places, a price has been offered for its extirpation, and BUFFON *sums up* in the following style: "It is extremely destructive, its plumage is entirely useless, its flesh indifferent food, its notes grating to the ear, and its familiarity and petulence disgusting."

No share of this odium, however, ought to be extended to *American* sparrows, for I know of no birds more deserving of our regard and protection. Their interests and ours never interfere; indeed most of their labours conduce to our benefit; and their music though overpowered by the stronger notes of *the thrush* and of *the robin*, is always pleasing when it can be heard without interruption.

Of this family, the song sparrow is decidedly the finest. He visits us earlier in Spring than any other migratory songster, and sings to us for several weeks almost without a competitor. The same notes are repeated many times in succession; he then changes and repeats others in the same manner.

In the above figure, a diminished copy of WILSON'S, *the dark spot* on the breast, which so frequently occurs, is not represented; neither does the figure represent it in the attitude of song.

"Of all our sparrows, says WILSON, this is the most numerous, the most generally diffused over the United States, and by far the earliest, sweetest, and most lasting songster.—It is the first singing bird in Spring, except the black capt Titmouse, taking precedence even of *the Pewee* and *Blue Bird*. Its song continues occasionally during the whole summer and fall; and is sometimes heard (near Philadelphia,) even in the depth of winter. The notes, or chant, are short but very sweet, resembling the beginning of the Canary's song, and frequently repeated, generally from the branches of bush or small tree, where it sits chanting for an hour together. It is fond of frequenting the borders of rivers, meadows, swamps, and such-like watery places; and if wounded, and unable to fly, will readily take to the water, and swim with considerable rapidity.

"The great cypress swamps of the Southern States appear to be the grand winter rendezvous of almost all our sparrows." Vol. p. 263.

The Bay-winged Bunting

resembles a sparrow both in manners and appearance. When flying it is readily known by two outside white feathers in its tail. Though not gregarious, they appear in considerable numbers along the road, and we suspect they are fond of rolling in the dust. The notes are rather louder but less musical than the song sparrow; and in the morning and evening their vivacity seems to be increased by the emulation of numbers.

"This bird says WILSON delights in frequenting grass and clover fields, perches on the tops of the fences, singing from the middle of April to the beginning of July with a clear and pleasant note, in which particular it far excels its European relation. They frequent the middle of fields more than hedges; run along the ground like a lark, which they also resemble in the great breadth of their wings: they are timid Birds; and rarely approach the farm house." Vol. 2, p. 206.

[For the New York Farmer.]

ART. CIX.—*A record of the Leafing and Blossoming of Fruit, Ornamental and Culinary Plants, in the Month April and part of May* 1831, *in the Garden of* ALEX. WALSH, of Lansingburgh, N. Y.; *and of the Appearance of Birds and Insects in that Vicinity.*

Daphne Mezereum in leaf and flower, Robins and Blue Birds shew themselves, April, 1.
Tartarian Honey Suckle in leaf, 7.
Martins make their welcome appearance, Weeping Willow and Currants in leaf, 9.
A plate of fine Asparagus; Snowball, and common Lilac, 14.
Flies found in the South windows, Filberts in leaf, 15.
Gooseberry, Weeping Cherry leaf and flower, 16.
Fruit Cherry, and Weeping Birch leaf, 19.
Siberian Lilac, and Balm of Gilead, 20.
Weeping Ash and American Thorn, 22.
Pear, Roan, Serbus aucuparia, Sweet scented Willow, and Butternut, 26.
Apple and Lime, 29.
Hyacinth, Crown Imperial, Raggad Robbin (Agrostemma flosculi,) Greek Valarian in all their splendor, 30.
American Mountain Ash in leaf, "
Weeping Ash, Sycamore, and Rose, May 1.
Three leaved bladder Nut (Staphylea trifolia,) Calycanthus, and Flowering Almond, 6.
Broad leaved Weeping Elm, 8.
Silver Abele, and flowering Peach, 10.
Monthly Honey Suckle, Bitter Sweet, American Sumac, and Bloody Dogwood, 11.
Quince, Peach, and Almond, 12.
Variegated and black Willow, 12.
Dwarf, weeping, white and purple Siberian Lilac, and flowering Almond elegantly dressed.
Vicia faba or broad Bean in blossom, 14.
American Thorn in flower the 7th, and English Thorn, 17.
Venitian Sumac, or Fringe Tree in leaf, 18.
Celery put in trench, and Pears in blossom, 18.
Pecan Nut, English Walnut, Sasafras, Burning bush Althea, and Catalpa expanding, 20.

Plum, Pear and Cherry leaf and give fruit blossoms so nearly at the same time, that the date for leafing may be taken for that of flowering.

Paper Mulberry, and Symphoria in leaf, 20.
Azalea nudiflora in flower, 20.
Hop tree in leaf and blossom, 20.

Gooseberries and currants half their usual size, which, as well as Apples, Raspberries, and Strawberries promise a great abundance, 21.

Plums uncommonly plentiful last year, look rather scanty this season.

Flowering Cherry, Snowball, Honey Suckle, Tulips and Wall Flower, in full blossom, 23.

Exotics placed in the open ground although the thermometer, on the 21st, was at 59 at sunrise, and to day, same time, 53; the housed fig trees show fruit —those protected in the open ground begin to bud. Flies move around as if very soon to be troublesome. A parcel of gooseberry bushes, received this spring from England, just begin to show buds. The Alexander, Rose Sharon, and John Apples, Greenips, Summer, Kempster and Malster Pippins commencing to flower, and with much promise. Grapes promise abundantly.

While contemplating the productions of a garden displaying the variegated foliage and brilliancy of the expanding blossoms, the mind is filled with admiration and wonder at this rich and splendid exhibition of the Creator's works.

To see in a variety of some hundreds of trees and shrubs, possessing the color of green in common, yet differing in both the shape and shade of the leaf—to cast the eye over the flowers that adorn and beautify the various orders and species of the vegetable tribes; —and to reflect that these flowers continue to unfold their beauties throughout the season, fills the mind with emotions that do not admit of description. But strange it is, that these pleasing and beautiful productions do not excite the admiration and love of all—that all do not participate in an amusement so innocent, and in a recreation so congenial to both body and mind. When the thoughts are raised up to the Creator of these scenes of beauty and order, the heart itself cannot fail to be moved: for the wisdom and goodness of God is so pre-eminently displayed as to call forth feelings of admiration and love of that Being, who has presented before us so much to admire, and to stimulate us to trust and confide in him. "Consider the lilies of the field, how they grow; they toil not, neither do they spin, and yet I say unto you that Solomon in all his glory was not arrayed like one of these."

Art. CX.—*Spesutia Farm.*

The farm, which is the subject of the present article, belongs to Mr. W. Smith, of Baltimore, Maryland. The account, which we take from the American Farmer, can not fail of being read with interest by farmers. One of the leading principles on which this farm is conducted, is not employing an overseer, by which an expense of $500 is saved. Mr. Smith has found the consequence of not trusting his farm to the management of an overseer, to be an increase of its productions. The experiment is a striking instance of what may be accomplished by systematic regulations. We consider a description of farms to be among the most useful topics for agriculturists; and we should be happy to have communications on the subject for the New-York Farmer.

1st. The farm is situated at the distance of about thirty-five miles from the residence of the owner. This circumstance alone would seem to render an overseer indispensably necessary. To diminish the evils of so great a distance, he has established an invariable rotation of crops, and a systematic arrangement of all the various operations of the farm. With such uniform regularity, as to time, altered only by casualities, are the several pieces of work begun and ended every year, that in visting his farm, he knows to a morel certainty, in what particular work he will find his people employed, what progress they have, or ought to have made in the general business, and of course what are the indications, if any, of negligence or idleness. All this, it is obvious, evinces, on the part of the negroes, vigilance and industry.

2d. The farm consists of 450 acres of rich upland, and of about 550 acres of reclaimed marsh, which is in progress of being completely drained. That portion of the upland which is under cultivation, is divided into five equal fields of 70 acres each. The course of rotation is corn, oats, wheat, clover, wheat; a system too severe, were it not for the abundant supply of manure every spring and autumn. The field in corn is manured throughout every spring, and that field in wheat which is on the oat stubble, is manured partially every fall. The accumulating, the hauling and the spread of such a large quantity of manure require unceasing zeal and industry.

3d. To get out the wheat, oats, and clover seed, there is a costly threshing machine, which necessarily requires the utmost vigilance.

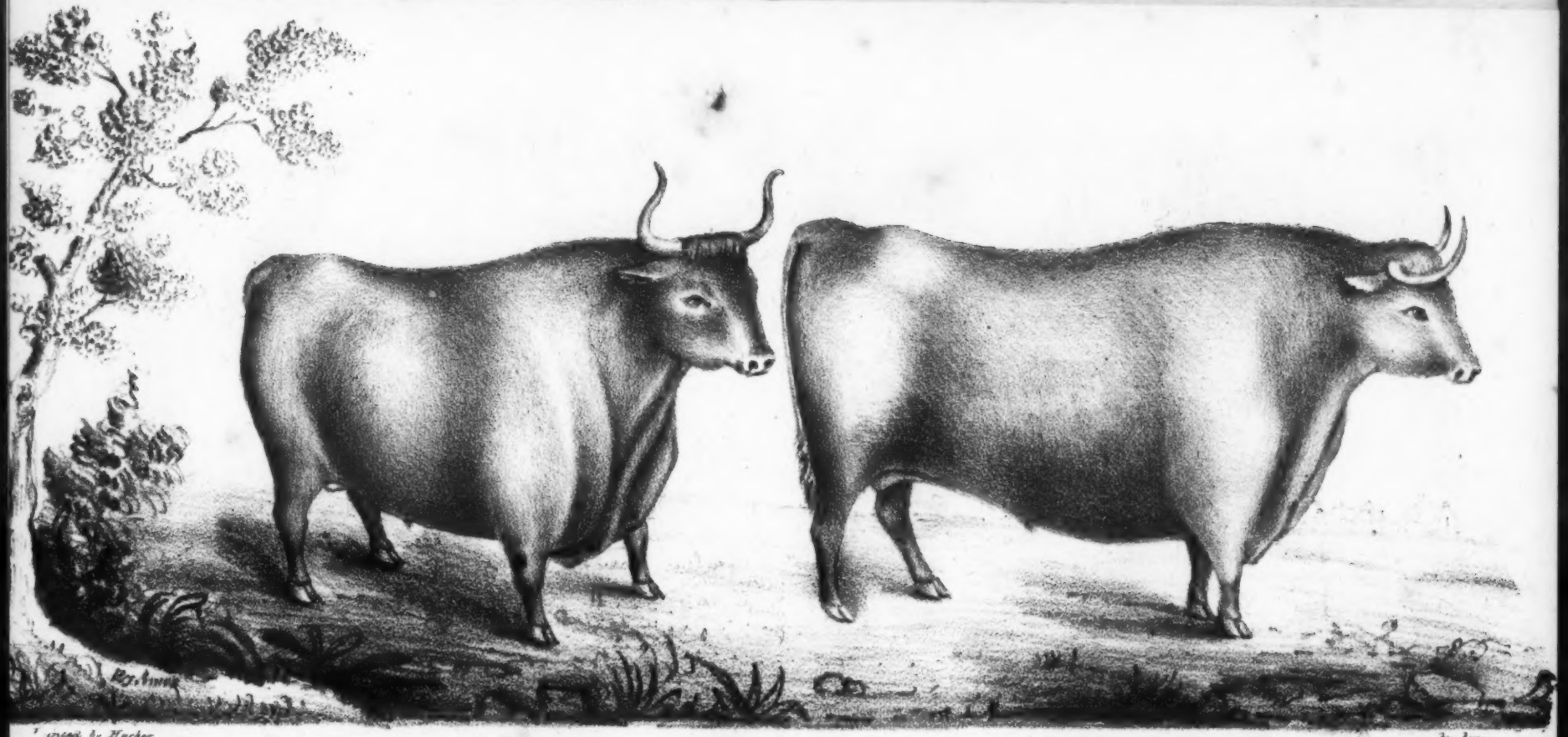
4th. The whole crop of wheat, and part of the crops of corn, and oats, are sent every year by water to the owner in Baltimore; so are also sent, from time to time, beef, hams, butter and various other articles for the table.

5th. The operations of ploughing, harrowing, and hauling are performed by breeding mares, which have been selected with a view, not only to their work, but to the value of their progeny. From them there are now on the farm many colts of various ages, the sales of which constitute a clear annual gain over and above the profit accruing from the labor of their dams. These colts are served by a full blooded horse, owned by Mr. S. In the place of this horse has been purchased this spring a beautiful stallion of the trotting breed, a colt of the celebrated Fagdown.

6th. Besides these working mares, there are two full blooded valuable Virginia mares, and three colts from them—one a much admired two years old filly, from a favourite son of the New York Eclipse, and the other two are foales of this spring from the Virginia horse Monsieur Tonson. These colts are also intended for sale as part of the profits of the farm.

7th. To this stock of neat cattle, a cross of the Holstein and Bakewell, there has been recently added a bull and two cows of the improved Durham short horn breed.

8th. On the north side of a long line of stables, sheds and barracks, are three convenient grass lots, and on the south side there are, besides the stack yard, three spacious yards with a few subdivisions for the accomodation of every variety of stock. The full



This pair of handsome, and Extra Fat Devonshire Oxen *were bred and fattened by S. & L. Hurlbut Esq^rs of Winchester, Connecticut U. S. from the original stock of that celebrated Agriculturist T. W. Coke Esq^r M.P. for the county of Norfolk, Great Britain.*

Nett profitable Weight of each Ox, when slaughtered by Tier & Granger, Butchers, Washington Market N. Y.

Near side Ox, Carcase	*1438*	*Off side Ox, Carcase*	*1528*
Hide 117. Tallow 175	*292*	*Hide 115. Tallow 213*	*328*
Total	*1730 lb.*	*Total*	*1856 lb.*

blooded mares, the working mares, the neat cattle, the colts and calves are, during the winter, kept in these stables and sheds, and in the yards and lots thereto attached; and they are duly supplied with water from a pump with troughs so arranged as to suit the several yards and lots. The neat cattle are occasionally fed on long necked winter squashes, turnips and potatoes. In addition to these articles of green food they will the ensuing winter, have cow cabbages and carrots both raised in the field. In the cultivation of carrots, Mr. S. has adopted, way of trial, the plan recommended in a number of the American Farmer of last March. And accordingly on an acre of ground, sowed with the usual quantity of flaxseed, he has sowed, this spring, a quart of carrot-seed. Should this experiment answer, his cultivation of carrots will hereafter be every year co-extensive with his flax ground.

9th. The great extent of his rich outside pasturage and the great abundance of his winter provender, enable him to maintain, besides other live stock, a vast number of mares, colts, cows and calves, which of course require untiring assiduity at all seasons and especially in winter

10th. Such is the attention of this farm to domestic manufactures that no part of the bedding or of the clothing of the people, except their shoes and hats, is purchased.

11th. The ice house, built by the negroes themselves, is every year so carefully filled as to keep the ice in a state of high preservation throughout the whole season.

12th. The apricot and plum trees are along the fence on one side of the lane leading to the dwelling. They are protected by a parallel temporary fence, made so as to admit the hogs and to exclude the cattle. And as the apricots and plums of these trees do not fall but ripen every year unless destroyed by an early frost, their preservation is attributed to the good offices of the hogs.

13th. The peach and pair trees are preserved by a very simple process. As soon as the leaves of a tree begin to curl or to change their color, the dirt is removed from the roots to the distance of about 12 or 18 inches from the stem of the tree. The roots are carefully scraped and every part wounded by the insects, or at all discolored is cut out and the incision made smooth by a sharp knife. All the roots are then plastered with a thick coat of fresh cow dung, upon this coat of dung are put fresh hickory ashes enough to fill the hole. The dirt dug out is thrown aside, so that the surface around the tree is altogether of ashes.

This enumeration of particulars has been here set forth for the purpose of showing the multifarious matters, requiring circumspection and forethought, which, for a series of years, have been advantageously committed to the care of negroes, and for the further purpose of calling attention to the practical details in the management of a farm, which, for sometime, has been gradually improving, as is indicated by its general appearance and by the progressive augmentation and amelioration of its productions of every nature and kind.

ART. CXI.—*Copy of a Letter from* THOMAS WILLIAM COKE ESQ. M. P. *to Mr. John Fisher, in reference to the Devonshire Cattle raised by the* Messrs. Hurlbut, of Con. [To the Editor of the New-York Farmer.]

SIR.—I beg leave to submit for your perusal and insertion in *the N. Y. Farmer*, the annexed copy of a letter, which I have just had the honor to receive, (via the *packet ship "Napoleon."* Capt. Smith,) from that venerable, celebrated character, and long-tried friend to *the American Land of Liberty!* Thomas William Coke, Esq. M. P. for the county of Norfolk, Great Britain—"*the Father of the Brtish House of Parliament.*"

Be assured Sir, that I feel a pleasure beyond the reach of my feeble pen to describe, when I reflect on being the humble instrument of introducing our fellow men to each other, across those unfathomable depths too, of the *vast Atlantic!*—in despite also, of the agitated oppressions, which *ill fated Europe* is *now*, and alas! has long been doomed to suffer!

We are aware, that men of *genius* and *philanthropy*, are well deserving our thanks, in all quarters of the Globe!---Hence, Mr. Editor, that the Agriculturists especially, as well as *all* other classes of the United States of America, may *hand down to posterity*, the *revered name of* COKE! *as their Brother and Friend!* is the sincere wish of, Sir, Your, Obliged Servant,

New York, June 6 1831. JOHN FISHER.

Holkham, April 21, 1831.

SIR.—I am this moment favored with your kind letter, and most flattering account of the Devon Oxen. It is to me a pleasing reflection that I was the first person that introduced them first into America, through my friend Mr. Patterson. I thought them at that time, and I am still more confirmed in that opinion now, that they are the most superior kind of cattle in this Island, if well selected. But I beg to be understood, when I speak of the Devonshire red Cattle, it is in praise of *the North Devon Cattle*, with yellow noses and indented foreheads, and yellow around their eyes, which *mark their character, beyond that of the Southern or South Devons*, which have black noses, or intermixed with black. These I beg to be distinctly understood not to recommend, or to be in any way recommended by me, as a superior breed of Cattle.

Be so kind as to express my acknowledgements to Mr. Hurlbut, when you see him, and to assure him that I shall be at all times most happy to show him, or any of his American friends, should they come to England, every attention in my power in the Agricultural line.

I remain Sir, Your,

Mr. J. Fisher, New York. } Obli'd, Humble Servant, THO. WILLIAM COKE.

[For the New-York Farmer.]

ART. CXII.—*Remarks on Vegetable and Animal Physiology.* By E. H. DIXON.

To an individual accustomed to view the productions of nature with the eye of a philosopher, and to consider their origin, growth and decay as the result of fixed immutable laws, a formal vindication of the advantage of physiological knowledge would be superfluous; but he whose pursuits have been such as not to allow the acquisition of this knowledge, might be inclined to ask, why all this array of book learning? Do not the planets revolve, vegetables grow, and animals consume them, as well as if you and your books

were not in existence; and can you tell us the origin of this blade of grass? Supposing this question coming from one of the good and hardy old yeomanry of our country, men whom I delight to look upon, and whose welfare should be near the heart of every honest man, I would say, softly, neighbour, softly. Let me ask you a question.? Do you know the ultimate origin of that beautiful grass bred hog, that will fatten on half the quantity of food required by that other tall vagabond looking beast, belonging to your anti-improvement neighbour. If you cannot answer my question, I am sure I cannot yours, but I can assure you it was by observation, and that is a great step towards physiology, that this improvement has come to pass. The animals look very different at present, but the gradations by which this one arrived at its present excellence, (descended, perhaps, from the progenitors of that other very beast,) were scarcely perceptible to any but the eyes of his intelligent owner. It was by availing himself of two well known laws in physiology—The resemblance of the young to the sire, and avoiding to breed from the same family, that an animal has been obtained combining so many good qualities as nearly to defy further improvement. Now if no other motive existed but that of mere interest, it would certainly be sufficient to induce a little closer inspection of nature: but not so, man is an inquisitive animal, and is not inclined to take upon trust, that for which he can find a rational cause. Let us endeavour to trace the succession of some of the various phenomena which are constantly occuring in the innumerable objects by which we are surrounded to their final results, knowing these we shall be better able to judge of the causes which produced them. And this at once opens the door of improvement. The results are obvious, if any doubt, let them cast their eyes over the transactions of any respectable agricultural society, and they are abundantly answered. The Bakewell and Devonshire cattle, the South Down and Dishley sheep; the magnificent improvments in fruit culture, and that of the grasses, attest the importance of scientific knowledge. Taking it for granted, that the importance of the subject is sufficiently obvious to every man of common intelligence: we shall give the most approved definition of our subject. Physiology is a knowledge of those laws, in obedience to which organised bodies, plants and animals, produce that combination of phenomena which is the evidence of their vitality, or in plain language, which tells us they are alive. Organic or living bodies constitute one of the grand divisions of nature's kingdom.—Inorganic, or dead bodies the other. The former contain within themselves a peculiar power of resistance to those physical and chemical laws which hold such absolute sway over the latter. That is, so long as they are alive, for as soon as an animal dies, it is subjected to the chemical law of decomposition; all succulent plants if not freely exposed to the sun and air, by which their juices are withdrawn, also run into immediate decomposition. These changes are all the result of chemical action.

Organic bodies are advanced considerably higher in that beautiful chain which constitutes the interminable whole; They have been kindly interposed by nature in the shape of plants between that higher department of organization—animal life—and that which has no pretentions to either, viz. the primitive substances,—the earths, gasses, &c. By means of their beautiful internal structure, they transform these substances, utterly worthless as animal nutriment, into a delicate and succulent food. Thus it is seen that the lowest department of nature is subject to the next in rank, whilst these in turn, are consumed by the animals appropriated to the use of man. From the very earth worm that occupies so low a scale in the animal chain, that it is doubtful whether vegetable life is essential to its existence, to man himself the chain is continuous, the dependence is mutual.

Another marked difference between organized and inorganized bodies, is observed in their mode of development. The former receive all their increase from within, through the medium of their internal organization, and have the power, (possessed in a still higher degree by animals) of transforming the juices they derive from the earth, into their own peculiar substance; whilst the latter, instance the familiar example of stones—grow either by accretion, like a snow-ball rolled upon the snow, or by means of a chemical combination of particles dissimilar to themselves, forming in many instances new and curious compounds. It will also occur to the reader upon a moment's reflection, that almost all organic beings are characterised by their round and smooth surfaces, and seldom in a state of health, have any of that roughness peculiar to minerals. Stones however lose this roughness by attrition, or becoming as is seen in the beds of brooks and rivers, water-worn. The quantity of liquids, also, existing in organic bodies is far greater than in mineral.

In many of the more succulent kinds of plants, they form by far the greater part of their constituents; whilst in minerals they either do not exist at all, or in so small a quantitiy as to be scarcely appreciable. Liquids appear to be indispensable to every being possessing animal or vegetable life. Richerand, speaking of trees observes, "Their nature more complex than that of minerals is less so than that of animals: the proportion of the solids to the liquids is greater than in these last: accordingly they retain long after death their form and bulk, only they grow lighter: the solids are in man nearly a sixth of the whole body, his carcase decomposed by putrefaction remains a little earth and a light skeleton when the ground and the air have drawn from it all its juices. A tree is more than three parts solid wood. It has been dead for ages and yet in our buildings it preserves its form and size, though by drying it has lost a little of its weight."

It would be wrong, however, to omit mentioning the heterogeneous nature of the constituents of living beings amongst the differences of the two grand divisions, although a more minute description of these is intended hereafter. Few of them contain less than four and none less than three substances entirely different in themselves, and each deserting its post and seeking another assylum and alliance with some of the the thousand beings, with which it is surrounded; upon the death of the individual whose existence it helped to maintain. These changes are constantly occurring and are no doubt necessary to the existence of every living being—Nature is impatient of a moment's pause.

> "By ceaseless action all that is subsists,
> Constant rotation of th'unwearied wheel
> That nature rides upon, maintains her health,
> Her beauty, her fertility."

The substance termed carbon occupies a prominent station in the vegetable kingdom, and azote or nitrogen an equally conspicuous one in the animal.

The former with the addition of oxygen and hydrogen exists even in the least complicated vegetable; and it requires the presence of the latter to produce a being possessed of animal life. As soon as death occurs, important evolutions take place among these gasses, by which the phenomena of the different kinds of fermentation and putrefaction are beautifully elucidated. Minerals, instead of three or four ingredients have seldom more than two, and are mostly characterised by some peculiar substance, as sulphur, or nitre, &c. Articles so dissimilar that they are easily recognised: besides, the metals which form a great part of most minerals, are themselves simple substances. In consequence of the homogeneous nature of their composition, and their firmer aggregation, they resist decomposition with more tenacity, and it is only by the long action of atmospheric influence, in itself a chemical process; or some immediate chemical or mechanical means that their structure can be at all altered. Many of the inorganic products can be reproduced by a chemical union of their constituents, whilst this is utterly impossible in an organic body. The last and greatest difference we shall mention consists in the wonderful power possessed by organic beings, whether plants or animals of renewing their species, which they do by virtue of their own inherent powers: this function will furnish the subject of a future communication. E. H. D.

[For the New-York Farmer.]

ART. CXIII.—*A new Enemy to the Vine.—Chrysomela Vitivora.*

About the 25th of last month, my attention was drawn to some brilliant bugs that were creeping on the vines; and on closer inspection I found that they were devouring the buds, eating out the heart and most succulent part. Some were advanced even half their lengths into the buds. The exigency required prompt measures, and in our first attack we probably destroyed a hundred. We continued our examination; and every warm day we find some, though we have hopes of soon extirpating the whole colony.

It belongs to the genus *Chrysomela*, but this species is not mentioned in any of *my* books. At this season, they are commonly in pairs. When disturbed, they rather jump than fly, and remain where they fall, for a time without motion.

At my request, a student in Entomology has furnished the following description. The *specific name* which he has proposed (should it not be already named) is indicative of its living and feeding on the vine (*Vitis.*)

Chrysomela.

Generic character.

Tarsi with four joints; palpi six; antennæ moniliform, thickening towards the tip; thorax margined; body ovate or oblong, convex.

Chrysomela vitivora.

Specific description.

Upper surface of the elytra, head, and thorax, of a deep greenish blue; the under surface of the elytra, the wings, the mouth, and the upper part of the abdomen, brown; the legs, antennæ, and the upper surface of the body, dark green; antennæ the length of the abdomen.

I have also procured from another hand, two accurate drawings of the insect. A represents it of the natural size. B magnified in its proper colors.

The Editor of the New-York Farmer will much oblige me by stating in his next number whether this insect has appeared in other places? D. T.

Greatfield 5 mo. 9, 1831.

Remarks.—We have submitted the above communication to several gentlemen versed in entomology, whose impressions were, that the insect has not before been described. We will pursue the inquiry still further the first moment of leisure.—*Ed.*

[For the New-York Farmer.]

ART.—CXIV. *Remarks on the Notices on Prince's Treatise on the Vine.*

'O that mine enemy would write a book.'

The authors of "Prince's Treatise on the Vine," have been much amused at the diversity of opinion, in regard to its merits, which has emanated from various quarters. As it must of course, have been *the desire* of the authors, to render the work as *imperfect* as possible, it might be expected with good reason that its readers would not be *insensible* to its *imperfections*, and that with all the lenity they might be willing to exercise, they could not consent to remain *wholly silent* as to its defects. Such being the circumstances of the case there would of course exist, on the part of the work, no claim whatever to any merit of its own; and its very existence would consequently depend on the mere sufferance of its readers. It is without doubt to this combination of circumstances, that is to be attributed the great *diversity of opinion* and the *absolute contradictions* which exist between those who have deigned to notice the work.

An author has many little amusements which others do not possess. His productions are viewed by such different optics, that the very paragraph which is declared by one person to be *weak and absurd*, is by another pronounced *most sensible and appropriate.* He may even be favoured with a review, (*so called,*) decrying the accuracy of his quotations and the correctness of his translations, without a solitary instance being quoted to prove the fact, and even when the writer has perused few or none of the works, from which such quotations have been made, and is totally ignorant both of foreign works and languages, and but little versed in those of his own tongue, and furthermore, even the very meaning of his language may be perverted by a string of mutilated and garbled quotations. Thus, while one scribbler pronounces his book to be *anything but what it should be*, another will declare that it is *every thing that was requisite.*

By this pleasing variation, he can at each passing moment perceive his book *chameleon-like changing its character:* for it can scarcely be presumed that the minds or *feelings* of its readers, can present such a discordant mass, or that this diversity of opinion, orginates from their sense of *justice* or their *prejudice.* Such has been the fortuitous debut of the work in question. On the one hand, Mr. Pleasants, a distinguished Vir-

ginian, the proprietor of a vineyard, and devoted to the vine culture, has thought proper to commend it in a review of several columns, published in the American Farmer, and kindly passing over its defects, has declared that, "*The most careful observation and the greatest research have evidently been made to render it as acceptable as possible.*" Another writer in the Genesee Farmer makes the following remarks; "*With the work generally I am very well pleased; it is for its volume a complete Encyclopedia of the vine; the descriptions are full and complete, both as to foreign and dometic varieties, and the comparitive advantages of cultivating the different sorts, are honestly and ably laid down, together with extensive and elaborate directions as to soil, climate and cultivation: and will prove that* DESIDERATUM, *so long and imperiously wanted to secure success in its cultivation.*"

Mr. King, of Georgia, also makes the following statement in his communication, "*I have read the Treatise on the Vine with much pleasure, as well as profit. It is the only one I have been able to procure that treats the subject in a common-sense manner, and will, I have no doubt, have a tendency to awaken the public mind to a sense of the importance of the subject on which it treats.*"

Other expressions of sentiment favorable to the work have appeared in the periodicals, and the authors received numerous letters containing epithets highly commendatory. All these, however they place to account of the clemency and forbearance of the writers, who are willing to close their minds to its mass of defects.

On the other hand, there have appeared communications pronouncing the Treatise to be every thing but what it should be, and these have no doubt shown the *true* state of the case, and completely confounded all those who had expressed opinions of a favourable nature. It is somewhat singular, however, that those who decry the work for *omissions*, should be *totally silent* as to the fact that they had only seen *a part* of the work, and that the second volume had not yet been published.—Even this, however, may be readily accounted for, by the fact that many can judge by the cover of a book precisely what are its contents, and therefore can decide with equal accuracy the sum total of its omissions, after reading the first chapter; and indeed some go still further, and are *quite as capable* of forming a correct judgment, before looking into a book, as after its entire perusal,

It may not be amiss to notice some of the points touched upon by Mr. Loubat. He quotes the following passage from the work. "*It is very seldom that the old wood of vines is frozen,*" and says, "The remark will not apply here."

We have to rejoin, by stating that *we know the remark does apply here* to all vines judiciously selected, and we adopt it because tested by our experience, And as to his loss of the 200,000 vines he speaks of, it forms no proof to the contrary; for those vines according to his own account, had not time to form strong old wood ere they perished, and he further acknowledges even their selection was ill-judged. Again he quotes the following, "*The vines which have been worked the latest in the spring, are the most susceptible to the attacks of frost,*" and says, "the fact is the contrary," and goes on further to remark, "the later a vine is worked, the later it grows, and by the same reason is less subject to spring frost." In this case the correctness of our assertion is so well known, even to the most common observer of facts, and are powerfully supported by the opinions of eminent writers, that one cannot conceive how Mr. L. could advance such an assertion.

We will notice one other statement made by Mr. L. in which he has wholly transposed the facts of the case. He says, "As respects the immense variety of vines, Mr. Prince is correct in stating it to be impossible to mark the precise difference: Indeed had he not made this candid confession, the fact was evident by his description of over 200 kinds, which *he calls* by 1500 French and 600 Latin names."

The bent of this remark is evidently calculated to indicate that the authors have endeavored to *extend* the list of names, when any candid reader will readily perceive that *in point of fact, the direct contrary is the case;* and that in truth their whole exertions have been used to *diminish* the list of names as far as possible, and that but about 200 names are adopted by them, and the heterogeneous mass of above two thousand other names in different languages has been carefully arranged as synonymes, thereby *condensing the numerous titles of other countries within a much smaller limit than has been done in any other work extant.* And in fulfilling this laborious task, the confused mass of error and repetition existing in the *French Catalogues* even of the present day, presented the obstacles most difficult to be surmounted, for it is a notorious fact, that the same vine has been repeatedly imported and imposed on the public here under three, four and and even six names, a repetition of which deceptions, the arrangement of the synonymes in the Treatise is more calculated to prevent in future than any other circumstance whatever. On this head Mr. Pleasants has, in his Review of the work, expressed himself thus: "*A valuable part of the nomenclature is the very careful arrangement of the synonymæ, which Mr. Prince has made,*" and "*he appears to have taken the utmost pains to render the nomenclature as perfect as possible.*"

It might be expected that Mr. Loubat would not make it a practice to cavil at the opinion of others, when it so plainly appears by his own acknowledgements of the immense and disproportionate losses he has sustained in his experiments, that he has been misled quite as much as others, when exercising his own judgment; and it should further be borne in mind, that if all others fail in their attempts to elucidate the matter, the consolation still remains that the public will not be deprived of Mr. Loubat's own elaborate Treatise on the same subject. The grand point however, in Mr. L's remarks appears, to be that *his vineyard has not been noticed* in the work, and this the authors most readily concede would be an act of injustice towards him, as well as towards their patrons. But what is the real state of the case? Is it not repeatedly declared both in the prospectus and in the published volume, that this forms but the *first part* of the Treatise, and that its purpose is to treat only of "*The general history of the Vine,*" and that "the *second part* will embrace the *particular history of the Vine,*" with an "*account of all known vineyards.*" &c.

With what reason therefore could Mr. L. expect his vineyard to be noticed when it is thus expressly stated, that such notices belonged to *another part* of the work, and particularly when numerous other vineyards, equally worthy of note are not mentioned, but

are reserved for their proper station. The whole of the remarks therefore on this head, amount simply to *a complaint that the second volume was not published before the first.* On the part of the authors, nothing could be less intentional than to pass over unnoticed the extensive vineyard of Mr. L. or to omit rendering due justice to his exertions; and had he but requested it, he would have been shown an article already prepared on the subject.

We will now enter into some general remarks relative to the objects embraced in the Treatise. The purpose of the authors as was stated in the preface to the work, that it "*should present the concentrated intelligence of every clime, derived from all the experience of the past;*" and to tender to their countrymen at a cheap rate such a fund of information, as could only be obtained at an immense expense in the purchase of other works. Our country seemed to require *not a partial*, but a *full and complete* work on the subject.

In accordance with this object, they imported all the most celebrated publications, at an expense of above $600. From these they have selected such facts as are worthy of interest touching this important culture, and deemed applicable to our own country, accompanied by comments drawn from their own experience, and that of their numerous American correspondents. In the descriptions of the French varieties of grapes they have particularly consulted the New-Duhamel, a most elaborate and expensive work, which it is believed at the time the Treatise was published the authors possessed the only copy of in our country, from which it may be inferred, that *few persons have possessed any opportunities to decide upon the accuracy of their translations.* But even this most interesting work contains *less than one-third* the number of descriptions of grapes which are given in the Treatise, for above 100 of the varieties therein contained are not described in any other publication, and the details are the result of the personal investigations of the authors.

This Treatise was expressly intended by the authors for their fellow countrymen, *to whom alone they deem themselves amenable*, and it is gratifying to them to know, that it has not met the censure of any native American citizen, but has received a degree of approbation more than commensurate with their expectations.

That some inadvertant errors might exist in a first edition, they were themselves fully aware at its commencement, and in the very second paragraph of the preface, they "crave from their fellow citizens, the extention of their kind indulgence towards such imperfections." But on the score of any inaccuracy, either in the quotations, or in the translations, they wish to express themselves in the *most unqualified terms.* There does not exist throughout the whole work *a single instance, where a quotation or translation is made from any foreign work, in which the spirit is in the least degree departed from, and the expressions in such cases are precise to the very letter.*

In conclusion, the authors have to state that it is their intention as soon as the second part of the work is completed, to submit the whole to a committee of gentlemen whose opinions have the entire confidence of the American public, and who will be alike uninfluenced by self interest or prejudice.

And whether the opinion which may emanate from such a source be to applaud or condemn, they will be fully satisfied to abide by their decision.

Lin. Bot. Garden, THE AUTHORS.
May, 1831.

ART. CXV.—*Bees.* By J. BUEL.

MR. FESSENDEN—If the inexhaustible subject of Bees is not worn out in your columns, you may state as follows.

In January last, with two friends, I called at a gentleman's house, in Worcester, Otsego county, N. Y. to see his bee hives.—He showed a house 4 by 6 feet, and 6 feet to the eaves, boarded, clapboarded, shingled and well floored, with a close door; on unlocking and opening which, we beheld an ordinary beehive attached to the east wall and well braced, with slight scaffolding extending upon the east, south and north sides. The only apperture was a small hole or two on the east side under the hive, which was elevated about three feet from the floor, for the bees to pass out and in. The bees had been put in, a young swarm, 18 months before. The original hive was not only filled, but large masses of comb were attached to the exterior, and along the contiguous scaffolding. The quantity of honey was probably from 100 to 150 lbs. On my return I called to see another Bee house belonging to the same gentleman, on another farm, built the preceeding summer. This was 6 feet square, better finished and painted. The bees had filled the ordinary hive, and constructed eight or ten large pieces of comb on the exterior, and these last were mostly filled with honey, and of the finest appearance, I think that I ever saw. The gentleman told me he could help himself to honey whenever he pleased, without disturbing the bees. I asked him if the bee moth did not plague him; he answered no. *He adopted the simple precaution of sprinkling spirits of turpentine occasionally, say every two weeks, about his ordinary hives, and around the holes of entrance into his large ones, which wholly repelled the moth.* I was so much pleased with this plan of managing bees, that immediately on my return I had a house for them, and design to put into it the first swarm which I can save.—*N. E. Farmer.*

[For the New-York Farmer.]

ART. CXVI.—*British Emigration.* By J. T.

"The number of settlers arrived here since the opening of the navigation, is 13,400. This number proportionally exceeds that of any other year, we think. The largest number is as usual from Ireland, and they are generally of the same description of persons as in former years, that is, brought up to agricultural pursuits. The number from the country parts of England is very considerable; they are almost wholly from among the farming classes. Those from Scotland are comparatively very few, most of them have a little money, and have set out after fixing upon the place where they would settle; but this is not generally the case with the English and Irish.

"In the early part of the season, it was expected that the emigration of this year would not be equal to what it was last; but the latest advices from Ireland repre-

sent almost the whole country as in motion towards the sea-ports. Vessels which brought out 300, had passages for near 1000 asked for. It appears probable, therefore, that the estimate of 40,000 is not too large for this season.

"Certainly a much larger proportion of the present emigration is settling in the Canadas than formerly. We do not now hear much of paupers, although several hundred were preparing at the latest dates to leave Wales. Notwithstanding the late immense influx, we have seen almost no person asking alms. But a walk in the forenoon in our streets presents a population completely Irish and English, and there cannot at this moment be less than from 10 to 15,000 passenger inhabitants in Quebec. The influx of consumers of course raises the price of provisions of every kind. The number of vessels arrived is 291. Quebec, May 27, 1831."

This prodigious annual influx of agricultural population into Canada, and subsequently into the United States, must have an immense bearing upon the Agricultural interests of these States, particularly, whose frontier touches Canada, as does that of this State. For it is a fact too well known to require formal allegation or enforcement, that of these ship loads of flesh and blood, imported into Canada, the greater part, from a varitey of causes, find their way ultimately into our country *generally*, and into this State particularly. The causes for this second migration are diverse; but may be principally found in the following. 1st. On the score of climate, or choice. 2nd. On the ground of political difference. 3rd. An unconquerable desire to see the States, the *ultima Thule*. Some others might be added, but these suffice.

It is very natural to ask, what has occasioned the flooding of a class of population, which should be the last to leave every country? It is answered by the following quotation from a very celebrated modern work.

"Since the peace of 1815, agriculture, in Great Britain, has sustained a severe shock, from the fall of prices occasioned by the lessened circulation of currency; the necessary preliminary to a return to a currency of the precious metals. In this shock many hundreds of farmers lost all their capital, and were obliged to become operatives to others; while some more fortunate, contrived to retain as much of the wreck of their property as enabled them to emigrate to other countries. Cleghorn, whose pamphlet on the depressed state of agriculture, was honored with the prize of the Highland Society of Scotland, thinks this loss cannot have been less than one year's rental of the whole island. The replies sent to the circular letter of the Board of agriculture regarding the agricultural state of the Kingdom in February, March and April 1819 furnish a body of evidence which cannot be controverted, and exhibit a picture of widely spread ruin among the agricultural classes and of distresses among all that immediately depend upon them, to which there is probably no parallel." But we have principally to do with this state of things, as it may have a bearing on the interests of this country. It is very well known, that every one of the members who attended the convention for the amendment of the constitution in 1789, yielded assent to the policy of encouraging emigration *generally;* among these great and wise men are found the names of Adams, Jefferson, Hamilton and Madison. It would be in vain to assert that the circumstances of the country have altered since, and that it is now more filled up. The answer is ready, and cannot be coped with. Were its political management as facile, and did it promise to be as free from political turbulence, as its civil polity is consolidated and firm, a population of two hundred millions would be no more to the North American continent, than twenty millions to Great Britain, if as much. In fact no boundary can be in this way rationally set. After the immense importations in the city of New-York which are annually going on, what is the reduction in the price of labour? Is there not the same avidity displayed, as was felt seven years ago, for every labour saving invention, which comes up? and if this were not conclusive the actual price of labour is, and on that we are willing to rest this question. Let any one contract with a mason, a carpenter, a bricklayer, a carman, a digger, or a paver; and tell us whether these accessions of population are not continually finding their level: and though labourers are more plenty, and can be had with less difficulty; yet the prices of labour have not materially diminished.

The utility of the Irish laborer may be *seen* in the immense erections continually going on all over the country, in the construction of new works continually, whether suburban or rural. But we have principally to do with the *agricultural emigrant* and a reference to the paragraph from the newspaper press, which stands as the text to this article, will bear us out in the most sanguine expectations and calculations; and what is admirably for our purposes, is that the stated facts are adapted to the meridian of Canada, and cannot be suspected of any sinister *ad captandum vulgus* design.

Let us analyze this accession of wealth to our common country. It has been often asserted that by far the *greater part* of all the agricultural emigrants arriving in Canada, as before stated, ultimately find their way hither, and at the lowest calculation, perhaps it may be safely assumed one half.

Each person brings with him *productive labor* in a pair of hands, and in many cases, there is the addition of some property, and in nearly all cases of knowledge. If the individual has to learn something, and is required before his labour can become in the highest degree efficient to adapt himself to a new situation, and a new set of circumstances; yet he brings with him inevitably greater expertness in some other things, and furnishes new ideas which cannot be wholly sunk or lost sight of, in making out such an estimate as the present. Thus the combined labor, property and knowledge of 20,000 agriculturists may from the foregoing data, be fairly assumed as added to the wealth of the society within one year, and that from an indirect and collateral source independent of our own *immediate importations in this city.*

In regard to emigrants of the low classes, some close observers have ingeniously and truly remarked, that some transmutation of the moral system appears inevitably to take place in the passage over; for the most degraded and abandoned individuals commonly shake off their ordinary habits on arrival in the States. And the prevalence of crime is immensely less than might be expected from the description of character previously indicated. In this respect it may be pretty surely assumed, that agriculturists of all other descriptions of emigrants must be allowed to have the preference, not only as being generally more exempt from vicious and demoralizing habits, but as

exercising an avocation more immediately analogous to the peculiar breadth of surface, and almost undefined limits of our country, and assisting more immediately in building the fabric of its real independence.

By an inspection of any map of the State of New-York, it may be seen, as we have already hinted that, our Canadian frontier extends itself so far along the north and north-west, as to take in more than one half of the whole boundary line of the state.

As the object of our publication is utility rather than abstract speculation, we shall propose and answer some questions relative to the manner in which our landowners and farmers may become benefited by the migration of British agricultrists, which enter our territory, through the portal of our sea port and extensive line of frontier. And first, to which class of settlers would it be desirable to give the preference, as it may relate to them in the capacity of neighbours, tenants, or dealers? Although this be a very delicate question to settle; yet we shall endeavour to steer clear of any partial leaning: and after having spoken of it agreeably to the dictates of our judgment then leave the matter, indifferent as to consequences: and more especially, as the authority for the materials upon which this judgment will be founded, is drawn from printed *works* of high authority. Between the emigrant Irish and Scotch husbandman, there seems to be almost a direct antithesis and contrast of character. The Scotsman is habitually thrifty, industrious and persevering, and is generally found to be observant of those minor virtues, which have so much to do with social tranquility. And where as here the country is sparsely populated, and the cultivator of the soil, on looking around him, sees few that may control him; where he feels that he is delivered from vilanage fiefship, and all the modifications of domination, which the feudal system left behind, entails; it is no unimportant affair whether he bring with him a mind habitually under moral restraint, or whether it be fitful, ferocious, and delivered up to the extremes of sullen reserve, or the outbreaks of violent passions or intemperate indulgencies. The Irish character, however, has also its virtues: there is discoverable in the lowest of the Irish peasantry a high-mindedness, contempt for, and forgetfulness of his wretchedness and poverty, and a generosity of sentiment which redeem some other traits; but as it respects the summary of the two kinds of character generally, and regarding its bearing upon the interests of society, and the desirableness of either, on the circumstance of neighbourhood, although the Irish character may be the most perfect in the second generation, the Scotch is undoubtedly the most preferable *in the first.*

The Scotch husbandman generally *brings something with him:* his pride and prudence, both important defences against extreme want, have governed his prospective movements. The Scotsman in point of education and manners, is also on higher ground, and as he is more hardy, and his constitution and habits of life, better adapted to the exigences of agricultural life in its new shape, which is that of suffering and privation, there is little comparison to be made. It remains to speak of the English emigrant. It must be allowed that from time immemorial that portion of Great Britain, which may be called Britain proper, or England, has borne the relation to the rest of the country, if we may be allowed the expression, of *Pater familias.*

The greater part of the vast capital which Britain wields is concentrated there: There is London, the exchange market of the world; and there is developed also, without disparagement to the other parts of the kingdom, the highest state of agricultural improvment, which is that with which we have more immediately to do: the English emigrant stands, perhaps, in respect to social qualities, *on intermediate situation between Scotch and Irish.*

It is observable that when there is no engrafting of emigrants upon the populaton the inhabitants are more stationary in both knowledge and practice. By the difference observable in both, even should a prejudice be at first harbored, knowledge and truth forces their way at last agreeably to the familiar adage—*magnus est veritas et prevalebit.* When a machine, introduced by a foreigner, is better in its construction than that already in use, and is found to save more labor, and the power employed at a less expense and with greater effect, from a regard to his interest, the native will finally adopt it—and when the emigrant on the other hand sees that important alterations in management are dictated by difference of climate, after a short struggle with the obstinacy of habit, he is impelled from the same forcible motive to fall into the native practice. We shall sum up the whole by a recapitulation of the substantial benefits this country derives from Emigrants and Emigration.

First, as the passage money must be paid the ship and owners are benefited. Then the cabin passengers particularly, beside this outlay, receive a regular revenue from the old country when their visit is experimental merely, perhaps, for along time. Again bettermost steerage passengers may afterwards receive assistance from their friends, and some bluff, rough looking people among these, occasionally carry in corduroy and cotton velvet inexpressibles some decent number of sovereigns. To all this must be added that by them, part of the cargo of the vessel is furnished in machinery, goods and stock. The first and last supply to the adopted country more than an exchangable commodity. By the first, the producing power of the country is increased with, perhaps, occasionally material improvement in point of construction. By the last, the breed of cattle is ameliorated and rendered more valuable. An opportunity is also offered of comparing the power and utility of the respective *implements* imported and in use here.

It is not too much to say, that besides the theory which books and periodicals touch, much is gathered from the exhibition of the *modus operandi.* And the improvements manifest in the dairy of late years in the United States, may be considerably attributed to such causes. Finally, to reduce the advantages derived from emigration to general heads, the productive labor, the machinery, the stock, the merchandise, the knowledge, and the numbers of the population, and the revenue of the country, all receive from this source an important accession.

ART. CXVII.—*Proceedings of the Albany Horticultural Society.*

SECOND EXHIBITION, MAY 3, 1831.

6 fine large parsnips. 12 fine heads Silecian lettuce.

1 fine boquet exotic flowers, from the garden of Stephen Van Rensselaer, sen.

7 heads spinage. 7 heads lettuce. 6 parsnips. 1 bunch 25 heads asparagus.

2 dozen large rich flavored apples, Swaar, Newtown Pippins and Spitzenbergs, from the garden of D. B. Slingerland.

1 large boquet, consisting of a great variety of splendid exotic and indigenous flowers, from the garden of Jesse Buel.

1 fine bunch, 25 heads asparagus, from the garden of Spencer Stafford.

1 fine bunch radishes, raised in the open ground from the garden of James Wilson.

Stated premiums were awarded to Stephen Van Rensselaer, sen., D. B. Slingerland, Jesse Buel, and Spencer Stafford.

THIRD EXHIBITION, MAY 17.

A fine large boquet of flowers, consisting of double flowering cherry, Japan apple, peach and almond, snow-flake jonquils, double tulips, spina futrix, purple and white lilacs—from the garden of D. B. Slingerland

2 fine bunches radishes, 12 stalks rhubarb—from the garden of S. Van Rensselaer, sen.

1 fine bunch Sir John Sinclair beet, 1 fine bunch sea kale, 20 inches in length, 12 stalks rhubarb, 2 stalks polianthus of 50 and 63 flowers—from the garden of George Wilcox.

A fine collection of flowers, consisting of double narcissus, almond, cherry and jacobia; 2 varieties of single narcissus, four varieties of lilac, Silician, Chinese, purple and white; double tulips of different colors; bizarn and bibloim tulips, of every variety of color, from the 'mountain of snow to the rose Rebecca'—from the garden of Jesse Buel.

2 bunches radishes, 12 stalks rhubarb—from the garden of Spencer Stafford.

1 bunch beets, 1 bunch carrots, both raised in open ground by James Wilson

3 splendid seedling heaths, rose colored and white—from the Albany Nursery.

Stated premiums were awarded to S. Van Rensselaer, sen., George Wilcox, and Jesse Buel.

Discretionary premiums for beta Sir John Sinclair and crambe maritima, to George Wilcox.

FOURTH EXHIBITION, MAY 31,

Half peck full podded peas, grown in open ground, by George Wilcox.

Half peck peas, from the garden of D. B. Slingerland.

Half peck peas, from the garden of Spencer Stafford.

A large and splendid collection of flowers, consisting of four varieties of ranunculus Asiaticus, ranunculus marygold, Chinese honeysuckle monk's hood, yellow day lily, red fraxanella, blue and white valerian, blue sophora, five varieties of columbine, three varieties of peonies, snow balls, Carolina allspice, woodbines, ragged robbin, five varieties of roses, Bell de Mongar, sanguinia, May, Scotch and thornless; perennial poppy and syringo,—from the garden of Jesse Buel.

A splendid collection of flowers, consisting of roses, red, pink, yellow white and Circassian, snow balls, peonies, and white valerian, three varieties of columbines, monk's hood and double yellow rannuculus, from the garden of D. B. Slingerland.

Stated premiums were awarded to George Wilson and Jesse Buel.

REMARKS.

The season to the 25th May, has been rather unfriendly to agriculture, being wet and cold; since that time, the weather has assumed a summer heat, and vegetation progresses rapidly.—*Argus.*

ART. CXVIII.—*Proceedings of the New York Horticultural Society.* [Continued from page 126.]

May 31.—Mr. Saltus presented an Agave Americana and a specimen of the Hemp manufactured from it, accompanied by the following letter.

Port au Prince, May 8, 1831.

SIR—Refering to my respects of the 26th ult., I have the pleasure now to inform you pr. Brig Onslow, the Plants you requested. Kegs could not be procured, but I hope they will arrive equally safe as they are.

The mode used for preparing this grass or hemp for market is very simple—a peice of timber similar to that used by curriers in cleaning skins at a certain period of the process of tanning, is arranged; the green leaves or shoots are placed on it, and with a piece of hard wood, formed something like a drawing knife, an end in each hand, the green and juicy substance is rubbed off, the white fibres remain and only require drying to be fit for sale.

Should these roots get to hand in good order, I beg your acceptance of them, and am,

Very respectfully Your

N. Saltus Esq. } Obliged Servant,
New York. } H. PHELPS.

Mr. Smith, from his garden at Lodi N. Jersey, presented a quart of green early Canada peas well filled, Rosa Bengalensis, several varieties of Scotch and other Roses, Podalyria, Cratægus pyricantha (Winter Thorn,) a bunch of Fringe tree, Yellow Iris, and a number of other fine flowers.

Mr. Wilson, from his garden at Murray Hill, exhibited 30 varieties of Scotch Roses, among them were Sylvia, Lady Banks, do. double, Scotia, Proteus, Hercules, Lady Compton, Countess of Dunmore, Dido, Hector, Princess Elizabeth, Ajax:—also 12 varieties of garden Roses, the Red monthly Cluster, Double Marbled, &c.— of the Chinese Roses, there were the Red Noisette, two seedlings of do., raised by Mr. W., Miss Helen Murray, and Incleberg. Halena diptera, Chionanthus virginicus, Papaver bracteatum, and other flowers were also exhibited by Mr. W.

June 7.—Mr. Wilson, presented a beautiful collection of Roses different varieties from those of the preceeding kinds, and 12 of Pinks, of the latter were Bow's Lady Butler, Davy's Sir Thomas Stanly, Turner's Lady Nelson, Bow's Mary Ann, and Beauty of England.

Mr. Hogg, from the Rose Hill Nursery, presented the following Roses, Queen, Pearson's Giant, Burning Coal, Shell, Mogul, Superb, St. Francis, Pluto, Unique, Watts' Blush, Stadtholder, Fleur de Parade, and two Portugal Roses.

Mr. Morrow, a splendid Bouquet, consisting of Roses Honey Suckles, Antirrhinum, Phlox suaveolens, &c.

Mr. Oakley, the singular Plant Saracena purpurea, Cactus speciosus, very beautiful Spanish Iris, Gnaphalium, and a bunch of fine Cherries, the tree from the Nursery of J. Bloodgood & Co.

ART. CIX.—*Miscellaneous, Original, and Selected.*

New-York Grain, Flour and Wool Market,—June 18. The receipts for wheat for a month past are scarcely worth noticing. A good parcel of western brought 108 cts. rye and corn have experienced a decline. Northern rye 68 cts; Northern corn 66, and Southern, do. 61 to 63. Rice is unusually heavy, 2,75 to 3,00 per cwt. In flour the market has materially changed in a short time; New-Orleans just imported 4,50 to 4,63; New-York western 5,12½ to 5,26.; Ohio, via. canal 4,75. Wool of the new clip has made its appearance in small quantities. It is thought there can be no redundant stock from our own resources, but large importations are expected, common fleece, washed 40 to 50, Merino, do. 50 to 75; lambs, pulled, 1st, quality 55 to 60.

REMARKS. The fall in the price of flour is owing to the news from Europe—favorable to a general peace.

Hydrophobia.—Many years ago I gleaned the following from an *experienced manager* of those domestic animals, and the *most sagacious too*, of the brute creation, THE FAITHFUL DOG.

The canine species are too frequently, especially in *crowded cities* and *large towns*, deprived of many advantages, in addition to their confined and filthy kennels; the want of clean water, air and exercise, and lastly, that *necessary ingredient* called "VOMITING GRASS," in order to assist digestion, which nature dictates as a CORRECTIVE to their *over-gorged stomachs.*

These observations may not be heeded by the "*the passing crowd.*" yet, in the feathered tribe, it is strongly *exemplified*, when deprived of *sand or gravel.*

That the *canine race*, in this, and all other cities, may be treated with *humanity*, and more particularly during their incarceration in the summer months, is the humble request of, sir,

Your Obed'nt Servant,

To the Ed. N. Y. Farmer. JOHN FISHER.

New York Beef Cattle Market, Monday June 13, 1831.—At Market this day about 400 head of Cattle, average prices about $7 per hundred.

Some very prime $7,50 yet, upon the whole full 6 shillings per hundred less than last Monday.

Sheep and Lambs—About 400; average about $2 per hundred.

Cows and Calves but few at Market—selling from $25 to 30.

No Swine at Market.

Hay from $5 to 6 per hundred—and for some very prime quality, rather more is obtained.

Why Peas boil hard?—Sir, Your correspondent J.M.(p.125) wishes to know the cause why peas boil hard. I suppose he means when dry for soup. The cause is I believe their being too old. I mean more than one year old. After that age they do not break well not even the best boilers; I have seen Knight's crumpled marrow and the blue Prussian, at three years old, boiled for twelve hours in soft water and in an iron pot (which one would suppose is iron enough, if that metal would affect them,) and they would not break nor bruise kindly when beaten in a marble mortar with a wooden pestle. From this I consider the cause of hard boiling peas to be age, even if they are split—so far *probatum est.—Eng. Gar. Mag.*

Laboring Schools.—A public meeting was held on 15 inst. in this city, in relation to manual laboring schools. The assembly was large, and the speakers expressed very strong sentiments in favor of this system of education. A subscription was taken up in aid of the Oneida Institute, at Whitesborough in this State, towards the erection of additional buildings for the accomodation of the numerous applicants. We are heartily glad to see this very important subject beginning to occupy public attention.

The Park.—This most public and central ground in the city, under the management of Mr. Wm. Curr, is now in far better order than we recollect to have seen it. The numerous trees, set out the two preceeding years, begin to extend their limbs and afford a pleasing sight and shade. The grass and walks are kept in fine order. For the want of a more suitable fence around the shubbery, the dogs have very much injured the appearance of the young firs.

Niblo's Garden.—This enchanting place of summer resort has been very considerably improved since the last season. In addition to the increased growth of the plants in open ground, the garden is variously and tastefully decorated with the flowery and ornamental plants taken from his spacious green house. These in connection with the immense number of variegated lamps, transparent columns, dioramic representations, views of splendid edifices, above all, the numerous, genteel and lively visitors render the place one of great and unusual attractions.

The Wheat Crop.—Accounts from Maryland and Carolina, represent the ravages of the fly, to be considerably injurious to wheat.

How can Grapes be best and longest preserved after they are cut?—I have many vines under my care, and am expected to supply grapes at table as long as possible: I consequently allow them to hang longer on the vines then is right they should. Anxious to learn the very best mode of keeping grapes after they are cut, I communicate my present mode, that its defects may be perceived and amended by some kind correspondent knowing a better. I save the Syrian till last: the Hamburgh and other kinds were last year ripe at the end of July, and were not all cut till December 2. The Syrian, which I never cut till prefectly ripe, I cut about the 10th of December. I then procured some clean sand, and dried it by the fire, till it would pass through a fine hair sieve. The grapes and the sand being dry, and the sand become cold, I took a shallow box, and having separated the shoulders from the main stalks of the bunches, I placed them in the bottom of the box; pouring the sand well in among the berries, so as to prevent as much as possible any two berries from touching each other. I then placed the box in a warm dry room; and by these means I have kept the grapes this season for above two months from the time I cut them, as I only finished the last of them yesterday; and they were acknowledged, by those who partook of them, to be as good as when put into the sand, except that the stalks had turned brown. Yours, &c. —*E. S. Feb.* 14. 1831.

To secure Cucumbers from Bugs.

We have tried various experiments for preserving Cucumber and melon plants against the bugs, but have found none so useful as a box with glass in the

top. The following we have found the most convenient way of making them:—Take of common fine clapboards about eight inches wide in sufficient quantity; with a small plough such as the joiners use, plough a furrow in one edge one quarter of an inch deep—then cut this clapboard into suitable lengths to form boxes of the desired size, according to the size of your glass and the number of lights intended for each box. For many uses one light is sufficient; but a better size for Melons and Cucumbers is to have two lights to each box. When the box is to be nailed together, either cut off the ploughing of one piece or have one that is not so wide as the others by the width of the ploughing, in order that the glass may be slipped in and out at pleasure. When boxes with glass in this manner are placed over hills of green plants, they not only effectually keep off all bugs and flies, but greatly accelerate the growth of the young plants. After the season for bugs is past, the glass may be taken out and packed in boxes, and kept until the succeeding year. The making of boxes and their application requires less time than is necessary to prevent the bugs from destroying the plants, in any other way with which we are acquainted.—*Genesee Farmer.*

Scientific Societies.—It is estimated that there are above fifteen hundred learned and scientific societies in the world: above one half of which are ocupied in the encouragement of agriculture, manufactures and commerce.

Machine for washing Grain.—Mr. Gilbert Arnold, of Angelica, New-York, has just patented a machine for washing and drying Grain. The description states that the grain is placed in a bason or hopper of water to the surface of which the smut and other impurities rise and float off. The kernel sinks, passes through a tub constructed to cleanse it thoroughly, and is carried into a heated sheet iron revolving cylinder, which, its position being inclined, discharges the grain dry and fit for grinding. It is said that wheat may be effectually freed from garlic by this method.

Beef Cattle.—The Northampton Courier states that prices for good cattle are well sustained in that vicinity. New-York drovers purchase $5\frac{1}{2}$ to 6 and even higher—prices as good as can be obtained after the cattle have been driven to Brighton, at no small expense. Good cattle, however, were becoming scarce in the vicinity. Between Westfield and North field, about 60 miles, it is stated, that more than $50,000 in cash has been distributed to farmers in 3 or 4 months, for cattle, chiefly in towns bordering on the Connecticut.

Chinese Corn.—A new species of corn from China has been introduced into Ireland, a sort of skinless oats, the most valuable produced in any country. It has many advantages over other grain: when threshed from the sheaf, it is exactly like oatmeal, fit for immediate use, and free from any particle of rind or husk. The flavor is delicious, and it contains much farinaceous matter. There accrues, of course, a great saving of the oats; and expense of kiln drying, grinding, and sifting, is avoided. The average produce is twenty six barrels of 14 stone, to the Irish acre. It is remarkably hardy, and well adapted for this climate.—

Value of Agricultural Information.—"Twenty years since I planted out several peach trees all of which died soon after, for want of knowledge how to treat them. I was then informed by our knowing ones, that the peach would not grow in this place. I believed them, and made no further effort to propagate them, until three years since, I procured from Wm. Kenrick's valuable nursery half a dozen trees, five of which I now have in a healthy flourishing state, very full of blossoms, and with a prospect of much fruit from them. For this I am indebted to the information obtained from the New England Farmer. There are persons who know not what tree it is that appears so beautiful, and others when passing have even called in, to inquire what they were.—*N. E. Farmer.*

Potato Starch.--Daniel Brown, Esq. of Portsmouth, N. H. has recently put in operation a manufactory of potato starch, which has already used 15,000 bushels of potatoes and it is thought will use 40,000 bushels before 1832.'

We believe there are two manufactories of starch in this country alone, one at Gilsum, and one in Dublin. Mr About's factory in Gilsum worked up 16,000 bushels of potato the last season. One farmer, in Sullivan, raised 2000 bushels. Starch is used in all the cotton manufactories.—*New Hamp. Sentinel.*

Prussiate of Iron—Important Invention for Manufacturers.—Napoleon offered a premium of three millions of francs to the person who should discover some material the production of France, that should in all respects answer as a substitute for indigo. In consequence of this stimulus, M. Souchon, a practical chemist and dyer, expended a fortune in experiments which finally resulted in the discovery of a method for fixing the color of prussiate of iron even more permanently than indigo blue. With this preparation he has succeeded in dying green, blue and black, at an expense of little more than one third of that of indigo colors, and said to be in every respect equally fine and permanent.

We learn that Mr. Arnold Buffon of this state, during his residence at Paris effected a contract with M. Souchon, for the communication of the process to him, to be introduced into the United States; and that he has recently received a full explanation of the method by which this important desideratum is effected.

The colors are said to resist the action of both acids and alkalis, and when worn for years (as we have seen stated by a mercantile house of high standing in Paris,) will present no whitened appearance on the seams, or at the pocket and button holes of garments, the colors there remaining unchanged.—*Providence American.*

Culture of Silk.—We are happy to learn that several public spirited individuals in this vicinity, are making exertious to introduce the culture of silk into Massachusetts. One gentleman in Middlesex County intends to have under culture next year one million of white mulbery trees, which will be sold at the bare nominal cost. He has now growing a large number of trees, and is making preparations to raise 300,000 this season. Mr D'Homergue of Philadelphia has been consulted on the subject and invited to establish a silk Filature at Lowell, which he is willing to do as soon as cocoons are raised in th isquarter in a sufficient degree to justify it. The general introduction of the culture of silk into New England would justly be considered an auspicious era in the agricultural prosperity of the country.—*N. E. Farmer.*

[For the New-York Farmer.]

ART. CXX.—*Planting Trees.*

MR. EDITOR,—I have been looking for the following humourous and pleasing article in the New-York Farmer. It is from Blackwood's Magazine. In hot weather you must occasionally give us something that will make us laugh, provided it is not done at the expense of utility. LANSINGBUGH.

June 23, 1831.

Trees are indeed the glory, the beauty, and the delight of nature. The man who loves not trees—to look at them—to lie under them—to climb up them, (once more a school-boy) would make no bones of murdering Mrs. Jeffs. In what one imaginable attribute, that it ought to possess, is a Tree, pray, deficient? Light, shade, shelter, coolness, freshness, music, all the colors of the rainbow, dew and dreams dropping through their umbrageous twilight at eve or morn—dropping direct—soft, sweet, soothing, and restorative, from heaven.—Without Trees, how in the name of wonder, could we have had houses, ships, bridges, easy-chairs, or coffins, or almost any single one of the necessaries, conveniences, or comforts of life? Without Trees one might have been born with a silver spoon in his mouth, but not another with a wooden ladle.

Tree by itself Tree, "such tents the patriarchs loved"—Ipse nemus—"the brotherhood of Trees" the Grove, the Coppice, the Wood, the Forest—dearly, and after a different fashion, do we love you all?—And love you all we shall, while our dim eyes can catch the glimmer, or our dull ears the murmur of the leaves—our imagination hears at midnight, the far-off swing of old branches groaning in the tempest Oh! is not Merry also Sylvan England? And has not Scotland, too, her old pine forests, blackening up her Highland mountains? Are not many of her rivered valleys not unadorned with woods—her braes beautiful with their birkin shaws?—And does not stately ash or sycamore tower above the kirk spire, in many a quiet glen, overshadowing the humble house of God, "the dial-stone aged and green," and all the deep sunk, sinking, or upright array of grave-stones, beneath which

"The rude forefathers of the hamlet sleep."

Every man of landed property, that lies fairly out of arms length of a town, whether free or copyhold, be it rental above or below forty shillings a year, should be a planter. Even an old bachelor, who has no right to become the father of a child, is not only free, but in duty bound to plant a tree. Unless his organ of philo-progenitiveness be small indeed, as he looks at the young tender plants in his own nursery-garden, his heart will yearn towards them with all the longing and instinctive fondness of a father. As he beholds them putting forth the tender buds of hope, he will be careful to preserve them from all blight—he will "teach the young idea how to shoot"—and according to their different natures, he will send them to different places to complete their education, accordingly as they are ultimately intended for the church, the bar, or the navy. The old gentleman will be surprised to see how soon his young plants have grown as tall as himself, even though he should be an extraordinary member of the Six Feet Club. An oak sapling of some five or six springs, shall measure with him on his stocking soles—and a larch considerably younger, laugh to shake its pink cones far over his wig. But they are all dutiful children—never go straying from home after youthful follies—and standing together in beautiful bands and in majestic masses, they will not suffer the noon-day sun to smite their father's head, nor the winds of heaven to "visit his face too roughly."

People are sometimes prevented from planting trees from the slowness of their growth. What a mistake that is! People might just as well be prevented from being wed, because a man-child takes one and twenty years to get out of his minority, and a woman-child, except in hot climates, is rarely marriageable before fifteen. Not the least fear in the world, that Tommy and Thomasine and the Tree will grow up fast enough—wither at the top—and die! It is a strange fear to feel—a strange complaint to utter—that any one thing in this world, animate or inanimate, is of too slow growth, for the nearer to its perfection, the nearer to its decay.

Besides, in every stage, how interesting, both a wood and sap tree, and a flesh aud blood child! Look at pretty ten-year-old, rosy cheeked, golden haired Mary, gazing, with all the blue brightness of her eyes, at that large dew drop, which the sun has let escape unmelted even into the meridian hours, on the topmost pink-bud within which the teeming leaf struggles to expand its beauty—the topmost pink-bud of that little lime-tree, but three winters old and half a spring!—Hark!—that is Harry, at home on a holiday, rustling like a roe in the coppicewood, in search of the nest of the black-bird or marvis; yet ten years ago that rocky hill-side was unplanted, and "that boy so bright and beautiful," unborn. Who, then, be his age what it may, would either linger, "with fond reluctant, amorous delay," to take unto himself a wife, for the purpose of having children, or to enclose a waste for the purpose of having trees?

At what time of life a human being—man or woman—looks best, it might be hard to say. A virgin of eighteen, straight and tall, bright, blooming and balmy, seems to our eyes a very beautiful and delightful sight. Inwardly we bless her and pray that she may be as happy as she is innocent. So, too, is an oak tree, about the same age, standing by itself, without a twig on its straight smooth, round, glossy, silver stem, for some few feet from the ground, and then branching out into a stately flutter of dark green leaves; the shape being indistinct in its regular but not formal over-fallings, and over-hangings, of light and shade. Such an oak tree is indeed beautiful, with all its tenderness, gracefulness and delicacy—ay, a delicacy almost seeming to be fragile, as if the cushat whirring from its concealment, would crush the new spring-shoots, sensitive almost as the gossamer, with which every twig is intertwined. Leaning on our staff, we bless it, and call it even by that very virgin's name; and ever thenceforth behold Louisa lying in its shade. Gentle reader, what is it to be an old, dreamy, visionary, prosing poet?

Let any one who accuses trees of laziness in growing, only keep out of sight of them for a few years; and, then returning home to them under the cloud of night, all at once open his eyes, on a fine sunny, summer's morning, and ask them how they have been since he and they mutually murmurred farewell! He will not recognize the face or the figure of a single

tree. That sycamore, whose top-shoot a cow you know, browsed off, to the breaking of your heart, some 4 or 5 years ago, is now as high as the "riggin," of the cottage, and is murmuring with bees among its blossoms, quite like an old tree. What precocity!—That Wych elm, hide-bound as it seemed of yore, and with only one arm that it could hardly lift from its side, is now a Briareus. Is that the larch you used to hop over?—now almost fit to be a mast of one of the fairy fleet on Windermere! You thought you would never have forgotten the triangle of the three birches; but you stare at them now as if they had dropped from the clouds!—and since you think that beech—that round hill of leaves—is not the same shabby shrub you left sticking in the gravel, why call the old gardener hither, and swear him to its identity on the Bible.

ART. CXXI.—*Report of a Committee of the Massachusetts Horticultural Society, on the Expediency of Measures being taken for the Establishment of an Experimental Garden, and Rural Cemetery.*

This report, which we find in the N. E. Farmer, is from the pen of Gen. Dearborn, the President of the Society, who is deserving of all praise for the active part he is taking, in promoting the interest of horticulture. The subject is a very important one, and we trust our readers will find it interesting. We regret that our limits do not permit us to give the whole article.—*Ed. N. Y. Farmer.*

To foster and extend a taste for the pleasant, useful and refined art of Gardening, the time appears to have arrived, for enlarging the sphere of action, and giving the most ample development to the original design of the Society.

The London, Paris, Edinburgh and Liverpool Horticultural associations, have each established Experimental Gardens, and the beneficial effects, have been conspicuously experienced, not only throughout England, Scotland and France, but the whole civilized world is deriving advantages from those magnificent depositories, of the rarest products, which have been collected, from the vast domains of Pomona and Flora. These noble precedents have been followed, in Russia, Germany, Holland and Italy.

With the EXPERIMENTAL GARDEN, it is recommended to unite a RURAL CEMETERY; for the period is not distant, when all the burial grounds within the city will be closed, and others must be formed in the country,—the primitive and only proper location. There the dead may repose undisturbed, through countless ages. There can be formed a public place of sepulchre, where monuments can be erected to our illustrious men, whose remains, thus far, have unfortunately been consigned to obscure and isolated tombs, instead of being collected within one common depository, where their great deeds might be perpetuated and their memories cherished by succeeding generations. Though dead, they would be eternal admonitors to the living,—teaching them the way, which leads to national glory and individual renown.

The Experimental Garden is intended, for the improvement of horticulture in all its departments, ornamental, as well as useful.

The objects which will chiefly claim attention, are, the collection and cultivation of common, improved, and new varieties of the different kinds of Fruits, Esculent Vegetables, Forest and Ornamental Trees and Shrubs, Flowering, Economical and other interesting Plants, which do not exclusively belong to the predial department of tillage;—paying particular attention to the qualities and habits of each;—instituting comparative experiments, on the modes of culture, to which they are usually subjected, so as to attain a knowledge of the most useful, rare and beautiful species;—the best process of rearing and propagating them, by seeds, scions, buds, suckers, layers, and cuttings; the most successful methods of insuring perfect and abundant crops, as well as satisfactory results, in all the branches of useful and ornamental planting, appertaining to HORTICULTURE.

Compartments to be assigned for the particular cultivation of Fruit Trees, Timber Trees, Ornamental Trees, and Shrubs, Esculent Vegetables, Flowers, and for the location of Green Houses, Stoves, Vineries, Orangeries, and Hot Beds.

For the accommodation of the Garden of Experiment and Cemetery, at least seventy acres of land are deemed necessary; and in making the selection of a site, it was very important that from forty to fifty acres should be well or partially covered with forest trees and shrubs, which could be appropriated for the latter establishment; and that it should present all possible varieties of soil, common in the vicinity of Boston; be diversified by hills, valleys, plains, brooks, and low meadows, and bogs, so as to afford proper localities for every kind of tree and plant, that will flourish in this climate; be near to some large stream or river; and easy of access by land and water; but still sufficiently retired.

To realize these advantages it is proposed, that a tract of land called Sweet Auburn, situated in Cambridge, should be purchased. As a large portion of the ground is now covered with trees, shrubs and wild flowering plants, avenues and walks may be made through them, in such a manner, as to render the whole establishment interesting and beautiful, at a small expense, and within a few years; and ultimately offer an example of landscape or picturesque gardening, in conformity to the modern style of laying out grounds, which will be highly creditable to the Society.

The streams, and parcels of bog and meadow land may be easily converted into ponds, and variously formed sheets of water, which will furnish appropriate positions for aquatic plants, while their borders may be planted with Rhododendrons, Azaleas, several species of the superb Magnolia, and other plants, which require a constantly humid soil, and decayed vegetable matter, for their nourishment.

On the southeastern and northeastern borders of the tract can be arranged the nurseries, and portions selected for the culture of fruit trees and esculent vegetables, on an extensive scale; there may be arranged the Aboritum, the Orchard, the Culinarum, Floral departments, Melon grounds and Strawberry beds, and Green houses.

The remainder of the land may be devoted to the Cemetery.

The establishment of a CEMETERY in connexion with the GARDEN OF EXPERIMENT, cannot fail of meeting public approbation. Such rural burial places were common, among the ancients, who allowed no grave yards within their cities. The Potter's Field

was without the walls of Jerusalem, and in the Twelve Tables, it was prescribed 'that the dead should neither be buried or burned in the city' of Rome. Evelyn states, 'that the custom of burying in churches and near about them, especially in great cities, is a novel presumption, indecent, sordid and very prejudicial to health; it was not done among the Christians in the primitive ages;' was forbidden by the Emperors, Gratian, Valentian and Theodosius, and never sanctioned until the time of Gregory the Great. The Eastern Christians do not now inter the dead within their churches. During the age of the patriarchs groves were selected as places of sepulchre. When Sarah died, Abraham purchased 'the field of Ephron, in Machpelah, with all the trees that were therein and the borders round about, as a burying place,' and there he buried his wife; 'and there they buried Abraham, Isaac, Rebekah and Leah; and when Jacob had blessed his sons, 'he said unto them, I am to be gathered unto my people: bury me with my fathers in the cave that is in the field of Ephron.' Deborah 'was buried beneath Beth-el, under an oak,' and the valiant men of Jabesh-gilead removed the bodies of Saul and his sons from the wall of Bethshon and 'buried them under a tree.' Moses was buried in 'a valley in the land of Moab;' Joseph in 'a parcel of ground in Shechem;" Eleazer, the son of Aaron 'in a hill that pertained to Phinehas,' and Manassah with Amon 'in the garden of Uzza.'

Even the Turks, who are so opposed to the cultivation of the fine arts, embellish their graveyards with evergreens. With them it is a religious duty, to plant trees around the graves of their kindred, and the burying ground of Scutari is one of the most interesting objects in the environs of Constantinople. Situated in the rear of the town and extending along the declivity of the Asiatic shore, towards the sea of Marmora, it presents a vast forest of majestic trees; and thither the inhabitants of the imperial city generally resort, during the sultry months of summer, to enjoy the cool breezes, which descend from the Euxine, or are wafted over the waves of the Propontis. Throughout Italy, France and England, there are many cemeteries which are ornamented with forest trees and flowering shrubs. Pere La Chaise, in the environs of Paris, has been admired, and celebrated, by every traveller, who has visited that beautiful garden of the dead.

In Liverpool a similar burying ground was completed three years since, and a meeting has recently been held in London for forming one, in the vicinity of that city, of a size, and on a scale of magnificence, which shall quadrate with the wealth and vast extent of the mighty capital of a great nation. Within the central area are to be exact models of the superb temples, triumphal arches, columns and public monuments of Greece and Rome, as receptacles, or memorials of the departed worthies of the empire.

The establishment of rural cemeteries similar to that of Pere La Chaise, has often been the subject of conversation in this country, and frequently adverted to by the writers in our scientific and literary publications. But a few years since, a meeting was held in Boston, by many of its most respectable citizens, for the purpose of maturing a plan and forming such an establishment, in the environs of the city. No one can be indifferent to a subject of such deep and universal interest. In whatever point of view it is considered, who is there, that does not perceive numerous and powerful inducements, for aiding in its accomplishment? How consoling and pleasing is the thought that our memories shall be cherished after death; and that the spot, where our ashes repose, shall be often visited, by dear and constant friends; that they will there linger, to call up the soothing, yet melancholy reminiscences of by gone times; that the sod which covers us, will be kept ever verdant; that a magnificent forest will be reared to overshadow our graves, by those truly kind hands, which performed the last sad office of affection; that flowers will fringe the pathways, leading to our lowly resting place, and their fragrance, mingled with the holiest aspirations ascend towards the throne of the Eternal.

To those who mourn, what a consolation to visit the bower-sequestered monument of a much loved friend, under circumstances and with associations, so favorably calculated to revive agreeable recollections of the past; and when those revolting ideas are excluded, which obtrude upon the mind, while standing in the usual dreary, desolate and ruinous repositories of the dead.

That part of the land which has been recommended for a CEMETERY, may be circumvallated by a spacious avenue, bordered by trees, shrubbery, and perennial flowers; rather as a line of demarcation, than of disconnexion; for the ornamental grounds of the GARDEN should be apparently blended with those of the Cemetery, and the walks of each so intercommunicate as to afford an uninterrupted range over both, as one common domain.

Among the hills, glades and dales, which are now covered with evergreen, and deciduous trees and shrubs, may be selected sites for isolated graves, and tombs, and these being surmounted with columns, obelisks, and other appropriate monuments of granite and marble, may be rendered interesting specimens of art; they will also vary and embellish the scenery, embraced within the scope of the numerous sinuous avenues, which may be felicitously opened, in all directions, and to a vast extent from the diversified and picturesque features, which the topography of the tract of land presents.

Besides the great public advantages, which will result, from the Horticultural departments, that portion of the land which may be consecrated to the dead, and rendered like the Elysian fields of the Egyptians, a holy and pleasant resort for the living,—the whole will present one of the most instructive, magnificent, and pleasant promenades in our country. From its immediate proximity to the Capital of the State, it will attract universal interest, and become a place of healthful, refreshing and agreeable resort, from early spring, until the close of autumn.

To accomplish these two great objects, it is necessary that a fund should be created, immediately, sufficient for the purchase of the land, surrounding it with a substantial fence, the erection of a gardener's lodge, laying out the grounds, and preparing them for the purposes of an Experimental Garden and a Cemetery. That this can be done, your committee does not entertain a doubt, and respectfully recommend the adoption of the following measures, as best calculated to insure success.

H. A. S. DEARBORN,
For the Committee.

(Resolutions to be continued, next week.)

ART. CXXII.—*Soil and Statistics of Ohio, Indiana, and Illinois.*

Having some subscribers among the recent emigrants, we deem it not inappropriate, particularly as the emigration is constantly increasing, to give some statistical information of the Western States. We glean the following, principally from the Farmer's Reporter:

Ohio is situated between 38 1-2 degs. and 42 min. North latitude, and between 3 degs. 32 min. and 7 degs 46 min. West longitude from Washington. It contains 25,600,000 acres of land, 15,336,124 of of which are valued at about $40,000,000. About one third part of the state, including the Eastern and Southeastern section, is hilly, but not mountainous. The Western, interior and Northern parts, are generally level or undulating. On the banks of the Ohio, Scioto, and Miami rivers, there are large tracts of alluvial or bottom land of most exuberant fertility. This land is composed of black vegetable mould, is easily tilled and frequently produces from 80 to 100 bushels of corn to an acre.

The face of the country on the shore of Lake Erie is generally level. The land is rich and heavily timbered. The uplands in this state are principally of a calcareous or limestone formation, interspersed with rich marl. They produce the finest crops of English grain and grass.

Wheat, corn, and pork, are the great staple productions. Very little attention was paid to the cultivation of a great variety of products until recently.

Ten years ago the vegetable market of Cincinnati was inferior to many of those in the interior towns of New-England.

Instances were not rare, it is said, that a man who could purchase a good turkey for 25 cents had to pay half that sum for a dozen onions to cook with it.

Nearly equal to this was the market for other vegetables, which, in fact, could scarcely be purchased at any price, except at a short time in each season. But like every thing else in this country, what was scarcely known yesterday is abundant to-day.

The population of Ohio is 937,670, having increased 356,245 in ten years.

Indiana.—This state is divided into 32 counties, 14 of which present a level surface, 11 rolling, and 7 hilly. A ridge of hills commences near the Wabash and runs in a Northeastern direction, nearly parallel with the Ohio river at no great distance from it, producing a broken country. North of these hills the country is level or gently undulated, to the distance of 70 miles.

Strips of excellent bottom land, usually from 3 to 6 miles wide, lie along the streams in this section. The prairies on the Wabash comprise the finest land in the state. Remote from the rivers the country is broken and the soil light.

The Northern part of the state is level, presenting prairies, swamps, wood land and marshes.

From late returns we find that 120,252 acres of land in Indiana are considered first rate, inferior to none in the Western country.

Many of our readers perhaps are unacquainted with the prairies which are peculiar to the Western country. It is therefore proper that we should give some explanation of them in this place. They are large tracts of land destitute of timber, and are composed of what is generally termed by farmers, "black muck," which is very deep and rich. They are called wet and dry prairies. The former are well adapted to grass, and the latter to grain.

Judge Hall, in his notes on Illinois, observes,—"When the eye of the practical farmer roves for the first time over the prairies of the West, he is struck with the dreariness of the prospect. That which is beautiful and picturesque to another, conveys no corresponding sensations to the mind of one who views it simply in relation to its capacity, for the support of man and the business in life. The absence of timber, seems to him, an evil without remedy, and in his judgment, thousands and millions of acres appear to be destined to bloom in eternal wilderness. That which appears to the superficial observer as a defect, is in truth, one of the greatest sources of the prosperity of our country. The labour of clearing wood land, is the most arduous task to which the western farmer is subjected. and has constituted in itself, the greatest drawback to the rapid growth of the new states. Where the soil is rich, the timber is generally heavy; and a lifetime is consumed in opening a farm. No one but a backwoodsman, accustomed to dwell in forests, to wield the axe, and to depend mainly on his rifle for subsistence, is fitted for this herculean enterprise; when undertaken by the husbandman from the Eastern states, it has scarcely ever failed to produce the most disastrous consequences; bankruptcy, disease, disappointment, and death have traced his footsteps and poisoned his enjoyments. If the farmer is not sufficiently wealthy to hire labourers, a few acres only are annually reclaimed from the forest; and even this is effected by the most laborious and painful drudgery. Years are consumed and the industrious settler sees the prime of his manhood wasted before he begins to reap the fruit of his labours."

Far different is the case in our open country, called prairies. "The settler may always select upon our prairies, land as fertile as the richest river bottoms; and by settling in the edge of the timber, combine every advantage afforded by the latter. He finds the land already cleared, and has only to enclose it. The labour of bringing it into culture is comparatively trifling. A heavy plough and a strong team is required the first year to turn over the sod. The corn is dropped in the furrows and covered with a hoe, and no other labour is bestowed upon it until it is fit to gather. By the ensuing spring the roots of the wild grass are found to be completely rotted, and the plough is put into a rich, light mould, fit for all the purposes of husbandry.

The ordinary operations of farming may now be conducted in the usual way, and the labour of cultivating a light soil, unincumbered with rocks and stumps, is so trifling as to leave time for the farmer to improve his land and buildings. The plough runs on a level plain of rich mould, and may be managed by a half grown boy, as well as by the strongest ploughman. In timber lands, newly cleared, ploughing requires both strength and skill. The plough must be sharpened frequently, and is often broken; and at last the work goes on slowly. The difference in the greater facility of working prairie lands; the saving in the wear of all implements of husbandry; the economy of time, and of course the greater degree of certainty in the farmer's calculations; the enjoyment of health

—are so great, as, in our opinion, to outweigh any inconvenience which can possibly be experienced in this country for the want of timber, even under the most unfavourable circumstances. A farmer had better settle in the midst of a prairie, and haul his fuel and rails *five miles*, than undertake to clear a farm in the forest. It is only necessary to make a nice calculation of the time consumed in the *transportation* of wood for fuel and all other purposes, and to observe how small a proportion it bears to the other labours of a farm, in order to satisfy any one who is acquainted with the subject, that it is really a matter of no importance, when brought into competition with the advantages of a prairie country."

Indiana contains 341,585 inhabitants. It has increased in population 194,404 within the last ten years. There are in the state 67 lawyers, 113 doctors, 184 merchants, and 12 printing offices.

Illinois.—The greater part of this state is either flat or rolling. Extensive prairies constitute about two-thirds of its surface. The bottom lands bear a heavy growth of timber. These lands are located on the principal rivers, and are very rich to a great depth.

There are several thousand acres of newly formed alluvial land at the mouth of the Wabash, and at the confluence of the Ohio with the Mississippi. The prairies of the Illinois river are the most extensive of any east of the Mississippi, and have alone been estimated at 1,200,000 acres, the soil of which is not inferior to the best river bottoms. Large tracts of these prairies, together with good bottom and upland, belong to the United States, called Congress lands, all of which are for sale, as we are informed, at $1 25 per acre. Here, then, the farmer may purchase an excellent farm, ready for the plough, for a much less sum than would be required merely to *clear off the timber*, from the same number of acres in a forest.

[For the New-York Farmer.]

CXXIII.—*On Chess or Cheat, in answer to C. F.*

At present, I have only time to make the following extract from the Florula Cestrica, written by Dr. *William Darlington*,—formerly member of Congress, Canal Commissioner of the state of Pennsylvania, &c. —an eminent botanist, who for nearly 30 years has included amongst his studies, the plants of our country; and whose opportunities and researches entitle his opinions on these subjects, to great respect.

D. T.

"This *foreign* grass is an unwelcome intruder among our winter grain. Some few of our farmers still entertain the *old, absurd notion*, brought hither by our ancestors, concerning *the transformation of plants;* and contend that this grass is in reality, nothing but corrupt or *degenerate wheat*—the change being effected, as they allege, by unfavourable seasons, or soils; excessive portions of certain manures; or being closely eaten down by cattle; and other accidental causes. It is a curious circumstance, in the history of *this vulgar error*, that in former times, the benighted peasantry of Europe, imagined wheat was converted into cheat, in poor soils, by *regular gradations:* that the *first* change was into *Rye*, then from Rye to *Barley*, from Barley to *Lolium*, and from Lolium to *Bromus*, or Cheat. They even thought it descended one step lower, by passing from Bromus to *Avena* or Oats! It was also supposed, that by the agency of a fertile soil, it could be brought gradually back again to its pristine state. In this country, however, the disciples of the doctrine have spiritedly abridged it, by discarding all these intermediate stages of transmutation, as mere surplusage! They insist, that the change from *wheat* to *bromus*, is effected directly and *at once*. So prevalent was *this strange conceit* prior to the time of Linneus, that a serious essay was written under the auspices of that great man, and published in the fifth volume of the *Amœnitates Academicæ*, for the express purpose of exploding *the absurdity*. At the present day, *the prejudice* is confined almost exclusively to the illiterate, and blindly credulous, who are exceedingly prone to adopt opinions in such matters without due examination,—and to maintain them with an obstinacy admirably proportioned to the lack of rational evidence."

Art. CXXIV.—*Retirement from Business to Rural Life.*—By the Editor.

In most all professions and pursuits of city life, the majority are looking forward to the day when they shall have acquired property sufficient to enable them to leave the cares and anxieties of business, and purchase peace and enjoyment in rural retirement. Many favorites of fortune have acted wisely in making secure what they had gained, and have retired to the country. They have selected places on the banks of some beautiful stream, or near the surge washed shore of the ocean, or perchance on some eminence overlooking, far and wide, hill and plain, darkened forests and golden fields: around their dwelling the delicate and the gay of Flora's kingdom have displayed all their beauty and richness: the refreshing shade, the fully ripened fruit, the growing grass, and the waving harvest have all lent their aid in the purchase of happiness or enjoyment. But alas! a void is felt in the restless heart of the possessor. This feeling too generally prevails—the active merchant finds the routine of country life too dull—he must either return to the city, run the risk of mercantile speculations, or he must support a house in town for occupancy in the winter months. In both he often looses all, and dies in want. But why is it that country life is so insupportable to families grown rich in the city? Has rural scenery lost its charms? Are Eden pleasures tame compared with those of a crowded city? No, not to those of properly cultivated taste and minds. But let us for a moment point out the causes that render a country life unequal to anticipation.

For those who have been accustomed to the activity and society of a city, a retired country-seat, however beautiful and desirable the situation for rural scenery, is not calculated to afford the expected enjoyments. There are but very few minds that can be continually pleased and contented in communion with inanimate objects and the brute creation. The frequent company of our fellow creatures, the numerous offices of friendship and duty attending the compact of society, must still form a considerable portion of daily incidents, independent of those of our own family circle, in order to keep up the elasticity of the mind,

and the vibration of hope, and fear. If then, the frequent presence of our neighbours is necessary to brighten up the countenance, in choosing a country-seat he, who has spent most of his days in Wall and Pearl streets, should not locate himself on some lonely bank of the Hudson or East River at a long distance from his neighbours, but in some little village, in which live a good parson, a learned physician and an intelligent schoolmaster. It tends very much to deprive a long storm of its tediousness by 'stepping into' the doctor's now and then, for a little chit chat; or having the clergyman, wife, and daughter 'to run over' at a slack of rain, and keep up the zest of social life while roars the wind and rattles the rain in the darkness without. And if, perchance, the teacher or farmer Thrifty 'comes up' and calls, having stopped at the post office, and brings news that the Poles are driving the Russians into the Baltic, or forcing them to seek safety on the fields of ice in the arctic ocean, it will all very materially add to the strength and pleasure of the emotions.

Another reason why a country residence often fails of being agreeable, is a deficiency of a cultivated and scientific acquaintance with the animal and vegetable kingdoms. Some knowledge of physiology, a degree of familiarity with the terms and classifications of botany, and knowledge of the habits and anatomical structure of animals—all, or much of this, should be acquired previously to leaving the city, where the facilities for such information, in part, are incomparably greater than in the country. In and near cities there are green-houses, market gardens, exhibitions at horticultural societies, all affording an opportunity to become acquainted with the various indigenous and exotic plants cultivated in the country. There are also societies devoted to other branches of natural history, giving lectures on anatomy, chemistry, and other studies intimately connected with rural pursuits. During all the time pursuing business in a city, every person should keep these studies constantly in view, and let no opportunity escape of getting some insight into them; and when the time arrives to retire into the country, he will find unceasing attractions and enjoyments in objects that pass unnoticed by him of more superficial and limited acquaintance with natural history.

Another mistake often made in retiring into country life, is the abstraction, and perhaps alienation, from the duties and calls of society. The active and restless mind of man, particularly of one habituated to the bustle and multiplicity of attention attendant on a city life, must engage in some objects that will call forth ardency of feeling, and excite sympathies. Instead then of selecting a residence that only serves to embellish the river scenery, or to catch the eye of the traveller as he journies along the distant road, let him who has a social nature, locate himself in some little neighborhood—let him surround his residence with the gayest of floral productions, and with the choicest of fruit—let him stock his farm with the best breeds of domestic animals—let him win the affections of his neighbors by distributing scions, cuttings and seeds of the choicest of his ornamental plants and fruit trees. Let him labour to convince the neighboring farmers of the advantages that would accrue by substituting an improved breed of cattle for those distinguished for scarcely one desirable property.

In leaving business, and taking up a residence in a retired country mansion, the usefulness of our citizens is rather limited than extended. If distance from neighbors is an objection, they generally make a selection in the neighborhood of a few nabobs of their own wealth and standing. Here their highest ambition is to equal or surpass their neighbors in the splendor and charms of their dwellings and grounds—and this accomplished, no further effect or further ends are produced. But let the rich and intelligent merchant or mechanic select some retired village—let him there set an example of taste and elegance in the construction of his dwelling and in the laying out of his grounds—let him embellish his farm with the most ornamental and useful of plants,—and let him stock it with the best breeds of domestic animals—let him introduce on it the most improved implements, after adopting all the real improvements of his neighbors,—and let it be managed, in the manner recommended by the experience the most judicious and enlightened farmers in the country. After all this let him join heart and hand with his neighbors in raising the standard of education in the village and neighboring towns. And farther, let him adopt a systematic beneficence towards all objects calculated to refine the taste of his neighborhood, and ameliorate the condition of his fellow-creatures. Thus situated and thus acting, he will, in a short time, see the fruits of his labor. He will see a choice vine spreading itself over many an arbor, or up the side of many a house—he will see the mother and the daughters displaying their taste in embellishing their front door yards with beautiful plants, obtained through his politeness and liberality. In fine, he will see a general spirit of improvement throughout the whole vicinity. Through the more exalted standard of the schools, he will see a generation rising in taste, refinement, and good sense equal if not superior to those with whom his children mingled in the city. And when his hoary head begins to bend low towards the ground, he will be surrounded by those who will venerate and bless him.

Art. CXXV. *Hydrophobia.*

Mr. Editor,

Sir:—I duly read the conjectures of your ingenious correspondent, Mr. Fisher, respecting causes of hydrophobia, contained in the last number of the N. Y. Farmer. He attributes the cause of canine madness, conjecturally to the want of "vomiting grass;" and slightly mentions, also, the privation of water in large cities, as probably contributing something. Your professed design being to draw forth, and exhibit to the public, *facts* and *practical knowledge*, on the subjects which legitimately come under your range of subject, I, of course, consider myself as acting perfectly in conformity with that design, in imparting what facts I know personally, or have obtained from others, respecting the origin of this horrid malady, either affirming or negating. First: I have to say, then, that as all *remedies* proposed for its cure, have hitherto failed, so have all *theories* respecting its derivation, been found fallacious. But, to recur to the supposition of your correspondent. It is answered in two ways. First: If Dogs were prompted by instinctive sensation, to desire any species of herbage, necessary to

their existence or health, they would seek it where it is to be found, *in spite* of restraint. Secondly: It is answered by fact—In England, such attention do dogs receive, in the kennels of noblemen, as that they fare better, on the average, than the lower classes. Their kennels are spacious and dry. Water is supplied them in abundance, and even profusion, and their meals consist of the sweet flesh of animals, mixed with meal—they have the range of forests and the *herbage* of the whole country, at their command. Yet, in one of these kennels, in the heart of the country (Glocestershire,) the hydrophobia *broke out* amongst them, and out of 75 couple 30 died in a few weeks. The first symptoms were melancholy, dejection and irritation of temper, alternately snapping at any and every thing which came in their way. Their food was changed and their habits were altered, still the result was the same—until the kennel was broken up. The effect of the chase was tried; a rabid dog was sure to discover himself, by diverging from the scent and course, without any apparent cause, suddenly; and tracking across the country, leaving the pack: and he was uniformly lost upon such occasions, no accounts but of his biting other animals, and of his death, ever reaching the kennel.

Dr. Jenner, of Cheltenham, the celebrated founder of the vaccine inoculation, took immense pains upon this occasion: he dissected the dogs which died in this wholesale way, in the kennel (near Cheltenham,) of hydrophobia. All the energies of his vigorous and acute mind, were totally nugatory as to the great object of discovering the cause of canine madness, as he himself declared by written and oral communications. Perhaps it may be worth while to state one fact, relating to the anatomy of the dog, which may furnish some sort of *data* for the direction of the curious, in their inquiries upon this subject. It is this: *The Dog perspires through the lungs.* This accounts for his panting from the effects of heat; but the state of his *skin*, *epidermis*, never alters in the way that that of other animals is found to do. A dog may with safety be thrown into the coldest water, in the hottest weather and after violent exercise, while it would be unsafe to practice this with horses, as the latter would be exposed to chills and inflammation of the lungs.

The opinion seems very naturally to have been put forth in the first instance, and in the second, to have mixed itself up with all reasonings on the subject, viz. that this horrid disease has some how or other been superinduced by the artificial life and habitudes of dogs, shut up in large cities; but this hypothesis is met and refuted by the fact, that *rabies* is frequently found amongst *wolves*, as an indigenous or primary disease, and by them communicated to other animals around. See the natural history of the French wolf—and in the case of the canine madness, referred to in the Glocestershire kennel, the disorder originated with the pack which was in a state of seclusion, and enjoying the advantages of pure air, regular meals and dry habitations, besides unlimited access to *herbage*.

J. T.

P. S. I have written in this free way, not to oppugn your Correspondent, but to present facts in the hope, that this intricate subject may receive further elucidation, from him or from others, being intimidated myself, after witnessing the failure of the great Jenner, from venturing forth any new hypothesis.

[For the New-York Farmer.]

ART. CXXVI.—*Shallow Sowing—Defect in Harrows.* By S. F.

In nature there is scarcely any other provision made for sowing seed, than by scattering them on the *surface* of the ground principally by the aid of winds.—One leading fact may be inferred from this circumstance—that although many seeds sown do not germinate, yet the depth to which these become covered that do grow, must be very inconsiderable. This fact is in accordance with the observations and experiments of agriculturists. They have found that plants which are planted deep come up more slowly and sickly, and produce less abundantly than those that are planted at a proper depth. For most kinds of seeds one inch is a sufficient depth; and in moist favorable weather half an inch. But the greater part of grain sown in this country varies from the smallest part of an inch to three or four inches in the same field.—The consequence must be a very great difference in the time of coming up, and in the vigor of the plant. On this subject, F. Von Voght, a German writer, thus speaks.

"I remarked also, that not only in the peasants' fields, but also in mine, the corn always sprang up unequally, and this not only as regarded the length or shortness of the time in which it became visible, but also with respect to the strength and fulness of the plant. Hitherto I had ascribed this to inequality in the germinating power of the seeds, since seeds sown close together, and under precisely the same circumstances, had brought forth very weak and powerful plants. I thought also that some disease had hindered the corn in its unfolding, or that it might have suffered from worms. Turning my attention to the point in consequence of what Burger said about it, I took up out of many fields plants of the rye and barley which showed this difference, and found, almost without exception, that all the strongly growing plants were covered with very little earth, and that the seeds of all the weak plants were from one and a half to three inches from the surface. Each had shot out many little roots, and at the same time with the opening of the seed-leaves the coronal *knot* had formed itself immediately above the soil; roots and small shoots richly and strongly, and quite contemporaneously, and in nearly like proportion, sprouted out; even on the same side where a *crown* (main?) root penetrated into the earth arose a new shoot. The broad fresh leaves promised to afford much nourishment to the plants from the atmosphere, and thereby to occasion a vigorous growth. How was it with regard to the more deeply sown seed? The little roots were few in number, and weakly; from the seed a small whitish pipe, from one to two inches in length, had sprung to the surface: the coronal *knot* formed itself on the surface, but with only a few meagre leaves, and one solitary ear alone expanded thereon."

From the above, it can be readily seen, that harrows in common use do not cover the seed to a uniform depth, but on the contrary vary it from the slightest possible covering to that of three or four inches. If the health, vigor, and productiveness of the plant depend so much on the proper depth, we should suppose it of primary consequence that no expense be spared in constructing suitable harrows, and bringing the soil to a proper degree of pulverization and evenness,

[We unite with the Editor of the N. E. Farmer, in considering the following "an able essay on an important topic."]

ART. CXXVII.—*On Breeding for a Dairy Stock.*

Mr. FESSENDEN.—The subject of breeding for a Dairy Stock, is one of a good deal of interest at this time. Inquiries are frequently made in conversation which show this to be the case. In the present state of our knowledge such questions as the following appear to the writer not at all too elementary.

1. What is meant by a particular breed of cattle?

2. Are there one or more breeds of cows known, by long trial to be deep milkers?

3. To what extent is *breed* to be relied upon in the selection of a stock for milk?

I propose to make a few suggestions by way of answer to these questions.

There is another which I shall say something upon in another paper with your permission, viz.

On what else, *besides breed*, depends *deep milking?*

It is nothing new to say that the object of breeding (in a technical sense,) is to perpetuate in the progeny, the form, constitution, and particular qualities of one or both the parents. But what I wish to ask attention to, and to enforce in this communication, is the very important fact—that the longer any distinguishing quality, mark, or peculiarity, can be traced back in the ancestry, the more deeply will it be fixed in the descendants, predominating, or taking the place of other qualities of more recent standing in either of the parents

A particular cow may chance to be a fine milker, but if the parents, for some generations, were not remarkable in the same way, her heifer calves will not probably be good milkers—at least no dependence can be placed upon them. If the sire is of a pure milk stock the chances are very much increased of course.

It is not too much to say from experience, here and in England, that of all the varieties of cows, designated by the terms, Short Horns, Long Horns, and Hornless—or by the names, more limited in their application, as Devon, Hereford, Holderness, Suffolk, Denton, Bakewell, Alderney, &c.—no one of them has been found to give *uniformly* or *generally*, more or better milk than any other. The evidence before the public, abroad and at home, is contradictory.

There have been individual instances of extraordinary milkers among all—and I may go so far as to say *families*, of extraordinary milkers, among all.

It has been too often taken for granted, that a good cow will produce good calves without inquiry into her parentage, or that of the bull to which she is sent—and prejudices have been raised in favor of marks and certain appearances, in such an animal, which have no necessary connexion, or none at all, with her faculty as a milker—and such marks have been allowed to determine the choice of another cow as infallible signs of a good one. The most prevalent popular token now is *the small head and short horns.* This is so far a good sign, as that the smaller the refuse parts, the nearer will be the approximation to perfection in the more valuable parts, whether for beef or milk—and this is all. So much has been most satisfactorily proved by the conclusive reasonings of Mr. Cline, the eminent anatomist, in an essay published by him a long time since.

The *Holderness Breed* have the *small head* and *short horns*, but they are esteemed in England much better fitted, in general, for the shambles than for the dairy. An established dairy stock might, no doubt, be raised from them by a careful selection of individuals, *male* and *female*, from a *milk family.* But it would be too much to say of so large a class as the Durham, Denton, or Hereford, though all *short horns*, that bearing either of those names, they may be relied upon as good milkers, and to produce uniformly good milkers.

If the experience of the country will not bear the writer out in this remark, he will be glad to find the stock so much in advance of his opinion.

The Devon Cows are not considered in England to be so good for milk as some other kinds. And yet, Mr. Coke, the great Norfolk Farmer, sent to a friend in Maryland, several years ago, a number of Devonshire cows, bred by himself, which were remarkable for quantity and quality of milk. They were bred on the side of both male and female, we presume, from animals whose progenitors were distinguished for this same quality: had he frequently crossed the blood of the Devons with any of the several kinds of Short Horns, whose descent, from an equally good stock for milk, had not been so well guarded, this same family would in a few generations have given evidences of material depreciation.

The truth really is, that we have yet the work to do to establish a pure milk breed.

To accomplish this, we must have a class of farmers who shall be *professed breeders* of a dairy stock —they will employ no bulls but such as come of good cows, they will raise no calves but from first rate cows. They will keep the heifers for some generations, sending off to the butchers such as turn out indifferent milkers; as some there will be, in whom the faults of remote parentage will be found to linger.—A herd thus carefully purged, and finally, after a few years, exhibiting a uniform character, *for milk* in the young, as *they come* in, will prove a lasting and sure source of increasing profit to the skilful, intelligent breeder, and an immense gain to the country.

The writer would ask, suppose a young farmer at the present moment is about to stock a milk-farm and is willing to pay the full value of *good cows*—good, we mean *as breeders*—where shall he go for them, in New-England? Where shall he be sure to find an established milk breed that will not disappoint him? He will find *improved* breeds enough—but who will venture to insure him that the improvement will not be found to consist as often in adaptation to the shambles as to the dairy?

The idea suggested, whether well or ill founded let others judge, is that we have not yet a pure *milk-stock*, that is, a stock descended for many generations from none but fine milkers. Some may think that the art of breeding cannot be carried so far as to secure a uniformity of excellence in this particular quality in the progeny. The answer can only be, that they have attained to that degree of perfection in England—that for half a century *thorough breeders*, have been successful in this particular as in others.—It is gratifying to be able to state any one thing on this most important subject, entitled to rank as an axiom and of a truly scientific character.

We say that thorough breeders have been entirely successful in England. Not that the farmers, gene-

rally in England have reached that degree of excellence. This would be far from the truth. All that is true even there, is the invaluable fact, that particular families of milch cows are there known to transmit their peculiarity, as great milkers, with uniform certainty, to their progeny. This fact is as valuable, for our instruction and example, as if the same thing were true of all the milch cows in England. On the other hand, let the following statement have its due weight, going to show, as it does, that it is of some consequence for breeding from what family an animal derives its descent. 'Mr. Woodward of Birlingham, Worcetshire, England, purchased *twelve deep milking* Yorkshire cows without *pretensions to breed, or disposition to fatten*—with these cows he used a *high-bred* Hereford Bull—and in the progeny lost the disposition to milk which the mothers had; acquiring that *of laying on fat*, which was the distinguishing merit of the family to which the bull belonged.—[Prize Essay of the Rev. Henry Barry.] Here is a striking case, where *high blood* enabled one of the parents to propagate his own peculiar excellence, and to prevent the transmission of the peculiar excellence of the mothers—viz. their tendency to be great milkers; because this quality was accidental in them and not derived from a select ancestry, and therefore not firmly established in the constitution.

[For the New-York Farmer.]

ART. CXXVIII.—*Effects of Early and Late Reaping of Wheat.*

MR. EDITOR,—My own experience for a number of years, corroborates the statements made in the following article, copied from the Virginian Herald. For fine flour, wheat should be reaped before it is fully ripe and hard; but for seed, it should be allowed to stand until it has reached its full maturity.

Yours, &c.

N. York, June 25, 1831. J. FISHER.

"SIR,—As the time of harvest is approaching, I address, through your paper, my brother farmers, on the importance of allowing wheat for sowing, to be entirely ripe before reaping. Accident last year, and eye-sight this year, have convinced me of the propriety of this course.

"In the year 1829, having selected by hand some ears of Mexican wheat, and sowed it in the fall of the same year, it was forgotten last year, until my little son reminded me that it ought to be gathered. It was then from seven to ten days after my other wheat of the same kind had been cut.—This wheat was then gathered and deposited in a bag. Last October this wheat was seeded on the same day, in the same manner and adjoining to other Mexican wheat. No selection of land was made for it, as no experiment was intended. It survived the fly, and the last severe winter with little injury, but not more than one third of the adjoining wheat has been left alive. From its present appearance, it will produce, I believe, two thirds more than its adjacent neighbour.

"Can the keeping in the bag, be the cause of this superiority? I believe not, because in several previous years, seed wheat has been kept by me in bags, and no similar result has taken place; my inference thence is, that this difference must be owing to the entire ripeness of the seed. Should any reader of this communication have doubts on this subject it would give me great pleasure to show them the growing wheat, which will convince, I should think, the most sceptical.

"From twenty-four years experience as a farmer, I am also satisfied, that the smut is mainly attributable to unripe seed wheat. My seed wheat has been always riper than that of my neighbours, and during that period, I have never seen but six smutted heads in my own crops. In a conversation with the late Mr. Isaac Williams, he confirmed my opinion, by stating to me the same practice of one of his nearest neighbours, attended by the most entire success.

"In making this communication, the interest of wheat-growers is my sole object, and if, by it, their crops should be increased, it will contribute to the happiness of your obedient servant,"

Liberty Hill, Caroline. JOHN TAYLOR.

ART. CXXIX.—*Proceedings of the New York Horticultural Society.* [Continued from page 138.]

June 14—Mr. Hyslop, gardener to N. Prime, Esq., presented two bunches of white Muscadine Grapes, in full maturity, of excellent flavor, weighing 11 and 12 ounces.

Mr. Smith, Seedsman, 372 Broadway, a plate of red Morello, from a tree imported from France; 1 do. of Bleeding Heart; 1 do. Harrison's Heart; 1 do. of Yellow Swiss.

Mr. Morrow, 2 heads Lettuce, weighing 1½ lbs., and 2 do., 1 lb. 14 oz.

Mr. Still, 2 long Prickly Cucumbers, 11 and 12 inches in length; 2 cluster do. 7½ inches each.

Mr. Floy, a Lonicera flexuosa, L. Fraseri, L. caprifolium italicum, Champney's cluster, Grenville and Royal Rose, Clematis viorna, Magnolia glauca.

Messrs. Prince & Sons, from their garden at Flushing, Andromeda speciosa, a beautiful plant with white flowers, a native of Carolina; a Peonia fragrans, and from two to six specimens of upwards of *one hundred* varieties of Roses, making a very splendid display of some of the most fragrant, beautiful, singular and delicate of this favorite and charming flower.

June 21—Mr. Neal presented a beautiful Scabiosa, Double Lychnis, Fox Glove, Geraneum Nosegay, do. deep scarlet, Provence Rose, 2 kinds of Coreopsis, white Lily, 20 seedling double Carnations, and blue bulbous Iris.

Mr. Floy, Magnolia glauca, Hoya carnosa, Passiflora alata, Petunia nyctaginiflora, monthly sweet Honey Suckle, Clematis viorna, Wellington's Geraneum, Nereum splendens.

Mr. Shaw, 12 Gooseberries, weighing 3 oz. 11 pwt.

Mr. Morrow, six Turnip Beets, weighing 1 lb. 13½ ounces,

Mr. Hogg, 20 uncommonly fine Holly Hocks, 12 Carnations, a first rate Amaryllis purpurea in pot, Geraneum triste, Coreopsis lanceolata, G. tinctoria, scarlet Lychnis, orange Lily, Lythrum salicaria, Spirea ulmaria, flore pleno, S. lobata, Lysimachia verticillata, Œnothera, Chenolea barbata, Delphinum grandiflorum, D. Chinensis, Betonica grandiflora, Lonicera Fraseri, seedling Chinese Rose, Valeriana officinalis, a seedling Phlox.

Mr. Wilson, 8 varieties, and 12 seedling Carnations, among which were the Pride of the Isles, Pan's playmate, and Royal Crown.

Mr. Oakley, a beautiful Boquet of Pinks, scarlet Lychnis, Chinese and Moss Roses, Gnaphalium, Veronica spicata, Malva officinalis, Coreopsis grandiflora, French Honey Suckle, French Marygold, Lythrum, and others.

Mr. Cooke, six large Gooseberries.

June 28—Alderman Wells presented 12 Gooseberries, 3 ozs. 4 pwt. 4 gr. Delphinium grandiflorum, handsome double Holly Hock, and, from the garden of Rev. Mr. Ives, the very beautiful and singular Rosa mycrophylla.

Mr. Wilson, 4 quarts of Antwerp Raspberries remarkably fine and large, 46 varieties of double China Pinks, 30 of single do., Lychnis fulgens, Campanula speculum, and several other choice flowers.

Mr. Oakley, 12 different sorts of Carnations.

Mr. Neal, 10, do. do.

Mr. Warner, a plate of very fine Black Heart Cherries.

Mr. Knox, 12 Gooseberries, 4½ oz. 8 pwt.

Mr. T. Bridgeman, a bushel of superior Vicia faba, English Broad Bean, accompanied by a letter to the Editor of the New-York Farmer.

Sir, *Bowery Road, June* 28, 1831

Being desirous that the Vicia faba, or English Beans, be fairly tested, and more generally introduced into this community, I have sent one bushel, to be distributed amongst those of the Members of the Horticultural Society, who may be desirous of testing them.

They are generally Boiled in England, with Bacon, Pork, or Fat salt Beef, and should boil about half an hour. If boiled without meat, they will require a few minutes longer, and may be seasoned with butter &c., the same as Lima Beans.

The basket contains a mixture of varieties; viz. Early Mazagan, Long Pod, Broad Windsor, Green Nonpareil and Green Genoa; they all yield equally well. Yours, very Respectifully,

T. Bridgeman.

Art. CXXX.—*Miscellaneous, Original, and Selected.*

New York Cattle Market,—Monday, June 27.—From 500 to 600 Head of Cattle in Market,—Price varying from $5½ to 7½—average $7. A few calves and cows of dull sale.

No swine, and few sheep,; common sheep, from $2,50 to 4; Lambs from $1,50 to 3. At Mr. Browning's yard, there remained unsold 27 very fine and fat Bakewell sheep brought from the vicinity of Albany; too fat for this season of the year; $7 demanded at first, but not called for at $6½. In the fall such sheep would readily command $10.

Hay.—New Hay, 50cts.; Old, 50 to 63cts.

New-York Grain, Flour, Wool and Provision Market, June 25.—The supplies of Wheat continue small; not much expected until the Southern crop in July and August; small parcels of Western, brought 109 cts. Virginia Wheat, 90 cts. Rye has improved; Northern 73 to 75, Southern 65 to 67. Corn is in demand; Southern 62 to 66, Northern 63 to 68.—Oats, Southern 32 to 35, Northern 37 to 38. Prices for Flour more stable; New-York superfine, $4 75 to 4 87, Troy 5 12, Western 5 00, Ohio, via. canal, 4 75. Wool—the new clip freely arrives, but no heavy sales made; common fleece, washed, 40 to 50; Merino, do. 50 to 75; Lamb's, 1st quality, 55 to 60. In Provisions, no alteration for 15 days.

By the arrival of the Silas Richards, on the 28th, Liverpool dates of the 27th of May have been received. The demands for cotton and grain were dull.

New-York Vegetable Market.—We hope soon to obtain some person, well qualified, to give a review of this department. Cherries are poor and in limited quantities, from 6 to $10 per 100 lbs.—from the country people. New Potatoes sold in the market, 18¾ cts. per half peck.

Receipt for making Vinello.—A writer in the Glasgow Temperance Record gives the following receipt for making cheap home-made wine, which he calls *Vinello*,

When your vine is of some size, instead of waiting till it produce grapes, which it may not do for some years, (though mine ripened some fruit in the open air the first year it was planted,) about the beginning of July prune all its rambling branches; cut them into small pieces, and, in some large vessel, infuse 6 lbs. of them, with the leaves, for about half an hour, in six imperial gallons of boiling water and add to the infusion 13 lbs. of loaf sugar. Pour the infusion into a jar or cask; and, in the course of ten days, when it has begun to ferment, put into the jar or barrel a large handful of elder flowers, which will greatly improve the flavor of the wine. Place the jar or cask in rather a warm situation, and after two or three months, when the fermentation has ceased, bung it up, and bottle it next summer. Lay the bottles on their side if not waxed, and in the course of two months it will be ready for use, and will be found to be a very pleasant, sparkling wine, partaking of the qualities both of Champagne and of Frontignac, being as brisk as the former, but in flavor more resembling the latter, with this advantage over both, that it costs only about fourpence a bottle. It is seven years since I planted the Nagal Muscadine Vine in the open air, and in proof that it ripens its fruit without any artificial heat but that which is given by a common wall, I have a seedling vine raised from the seed of its grapes, and which I expect to bear fruit next season. But, fortunately, we do not depend on grapes for our vintage, as the prunings can always be had. For four years we have annually made several gallons of wine, which we call *Vinello*, that being the Italian for a light pleasant wine. Last year's vintage was so good, that a gentleman, with whom I exchanged some of it for Frontignac, said, that he could not distinguish the one from the other. I am, Sir, your obedient servant.

Vintor.

Construction of an Ice House.—Mr. Editor, I much approve your change, from a monthly to a weekly publication, of the Farmer. I hope your encouragement may be equal to the additional labor and expense.

Your accounts of the cattle market, are interesting to correct farmers. Your Journal has lately given some valuable hints upon the management of Bees.

Will not some of your correspondents furnish information, as to the cheapest and best manner of constructing an Ice House? J. F.

Newburgh, June 27, 1831.

Locust in the Western part of New-York.—Myriads of these insects have made their appearance in the western countries. We select the following from the Onondaga Standard:

Within about ten days, and during the prevalence of the late hot and dry weather, we have been visited by an uncommon species of the *Locust*. From the 25th ult. to the 4th inst. we have been without clouds or rain, the thermometer rising for the most part of the time to 90 degrees and upwards. We cannot learn that this insect was observed before Sunday the 29th ult., and only a few individuals were seen then; but by Tuesday afternoon succeeding, they had increased to myriads. The larvæ came out of the earth in the night, leaving a considerable orifice, and ascending the bodies of shrubs and trees chiefly, attached themselves to the bark, limbs, and lower leaves —and, in a short time after, being warmed by the sun, burst from their shells and exhibited the perfect insect.

This family of the *Grullus* tribe infest the oaklands, exclusively, in this country, and are confined to the town of Salina, a part of Onondaga, and a few lots in Manlius. For a day or two after casting the shell of the larvæ, they remain in a state of inactivity, but afterwards rise towards the tops of the trees and fill the air with their notes, which, in concert, is as incessant as a water-fall, shrill and sharp, resembling the sound of a frog pond in the spring, and almost deafening on a near approach. During the rain on Sunday last, they were noiseless, but no longer so than whilst it continued. In the oak-land of the second growth, we have the most favorable field of observation. They fill the trees here in countless multitudes, and during a ride on Monday morning, we saw the branches literally bending beneath their weight. They have not begun to eat yet, and, indeed, are engaged in no apparent employment, except that of singing. They have not attained any material strength of wing, but rather flutter about like the large species of moth. In size, they measure an inch and a half in length, one third of which is made up by an extension of the wing beyond the back. Their color is black, brown and reddish; wings without cases and transparent.

We do not know what to apprehend from this visitation. Several wheat fields in this vicinity formerly covered with oak, exhibit as numerous swarms as the wood land. If they should become as voracious as the migratory *Locust* of the eastern continent, these fields must inevitably be destroyed, whilst the trees will be stripped of their foliage.

Why Peas Boil Hard. Mr. Editor, In answer to the queries in your last, I would inquire, 1st. Are there not some peas which will boil soft at any age? 2. Does not the soaking of peas in cold water facilitate their boiling in all cases? 3. Does not the boiling quality of peas depend, in a great measure, on the *soil*, independent of any other cause? and are there not some descriptions of land, for instance, stone brush or light soil, which uniformly produce good boiling peas, and other descriptions of land, as stiff clay or argillaceous, which as uniformly produce hard boiling peas? J. T.

Ed. N. Y. Farmer.

John Adlum's Receipt for making Currant Wine Take two bushels of currants, sixteen gallons of water, and from seventy-two to eighty-four pounds of sugar, (according as you would have it more or less strong.) Bruise the currants, add the water, then press or squeeze out all the liquid; then add the sugar, dissolve it, and put it into your cask in the cellar to ferment; keep some of the liquor to fill up the cask as it wastes by fermentation, and in about ten days bung it up tight, and bore a gimblet hole near the bung, and put a peg in it lightly, and in about a month drive it in tight; examine it in November or the beginning of December, and it will generally be found fine and bright, when it ought to be racked into a clean cask well fumigated with sulphur, and if it is not perfectly fine and bright, *fine it;* after which it may be bottled, or again racked into another cask, as above directed; when it will keep for years in the wood, and be improving.

By taking nine pecks of currants and eighty-four pounds of sugar, a whiskey barrel full may be made, holding from thirty-two to thirty-four gallons; if the cask is not quite full, fill it with water.

Note. Thirteen and a half pounds of sugar produce one gallon of liquid. The currants ought to be picked on a dry day, and the wine made the same day, otherwise it will take more sugar, and will not be so neat a wine as if the whole operations were completed in a day.

Large Strawberries.—There were exhibited by Judge Buel, at the horticultural show on Tuesday the 21st, fifty strawberries of uncommon size and beauty. On weighing them, the committee found that forty-seven berries divested of their stems, weighed a pound—three averaging a little more than an ounce; and it is said every berry exceeded four inches in circumference. These strawberries were of the kind called Methven, or Methven Castle, from the place where the variety originated, and are of the colour and flavor of the common field variety. They were gathered from plants put out in August last, the runners of which have not been clipped.

There were also exhibited, at the same time from the Albany Nursery, more than 100 varieties of hardy roses, 7 varieties of honeysuckle (*Lonicera*) 6 of the pink (*Dianthus,*) Chinese peonies, dahlias, and more than 40 varieties of choice border flowers.

We were presented by judge Buel, a day or two since, with two bowls of the Methven strawberry, most of which measured four inches in circumference and of a rich flavor.

To prevent the Depredations of Weevil.—Whoever will take the trouble to gather Elder stalks and leaves, and put plenty of it among their wheat while mowing it away, will find it in a state of preservation at threshing time.—*Western Tiller.*

Pennsylvania Horticultural Exhibition.—The exhibition on the 1st and 2d of June, is said to have been very splendid, highly creditable to those by whose instrumentality it was got up.

Elder.—The expressed juice of elder leaves will kill skippers in cheese, bacon, &c.; and strong decoctions of the leaves or roots are fatal to insects, which depredate on plants in gardens, &c. Dr. Willich observes, that "the leaves of elder are eaten by sheep, to which they are of great service when dis-

eased with the rot; for if placed in a situation where they can easily reach the bark and young shoots, they will speedily cure themselves." Dr. Elliott observed in his *Essay on Field Husbandry*, that "elder bushes are stubborn and hard to subdue, yet I know by experience, that mowing them five times a year will kill them.—*N. E. Farmer.*

Hemp.—A company has been formed in Farmington, in the state of Maine, for the purpose of encouraging the cultivation of hemp and erecting machinery for dressing and preparing it for market. The company is called the "Farmington Falls Hemp Company." Their machinery will be in operation by the first of August, in time to receive the crops of this year's growth. It is believed that farmers may make a profitable business by turning their attention to the raising of hemp. A flourishing establishment for dressing hemp, as our readers are already informed has been in operation the year past in Livermore.—*Portland Courier.*

Easy method of preserving Animal food sweet for several days in the height of Summer.—Veal, mutton, beef, or venison, may be kept for nine or ten days perfectly sweet and good, in the heat of summer, by lightly covering the same with bran, and hanging it in a high, windy room; therefore, a cupboard full of small holes, or a wire safe, so that the wind may have a passage through, is recommended to be placed in such a room, to keep away the flies.—*Anon.*

To Save Seeds.—All seeds keep better in their seed vessels, but this can rarely be done, on account of the great space occupied. As soon, therefore, as the pods of cabbages, turnips, radishes, &c. turn brown, and a part of them become dry, the stems should be cut and laid on a cloth or floor to dry, and afterwards thrashed out, and hung up in bags in some open, airy place. Lettuces should be pulled up with the *roots*, as soon as there is the least appearance of maturity, and hung up, and the plants will ripen all of their seeds, nearly at the same time.—If left in the garden to ripen, the earliest and best will be lost; in fact, except under very favorable circumstances, very few will be obtained, as every shower and every strong breeze will lessen the quantity, and scatter those which are mature over the garden. The same course should be pursued with leeks and onions.—It is a prevalent opinion that the bush squash cannot be perpetuated among us, as such have a strong tendency to run, and will in one or two seasons become a vine. This is a mistake, and has originated, no doubt, in the manner of saving the the seed. If the first squashes which appear be retained for seed, there is no danger of the plant running, the next season, but if these be used and those which are borne at the extremities are preserved for this purpose, they will run, and moreover will be later in bearing. To have early fruit of either the squash, cucumber or melon, the very first should be reserved.—*Southern Agri.*

Cane Grain, Arundo tecta?—We have a small parcel of the seed of cane-brake or reed, which grew this spring in Nansemond county, Va. in the borders of the Dismal Swamp. It is very much of the form of rye, but much larger, and the skin of a darker color. It has ripened this spring in considerable abundance, so that some of the people in the vicinity have gathered many bushels of it and had it ground and made into bread, which they assure us was superior to that of wheat. The grain is not as firm as wheat, but the flour appears equally white. It has a sweet taste, somewhat resembling half ripe wheat. Were it not for the singular habit of this plant in not flowering or producing seed oftener than once in five or six years, the Dismal Swamp would become a source of immense wealth to the adjacent country. But as it is, any benefit from its cultivation is hopeless. It is said by some that it only flowers and bears seed once in twenty years; but this is a mistake, as it did so in 1804, and 1811, and several times since.—*Amer. Farmer.*

Cheese Gourd dressed in the Spanish Way.—When ripe, cut the fleshy part into slices about half an inch thick; score it across into small dice about half through one side of the slices; scrape a little of the fat of bacon, and put it into a saucepan, with a little parsley, shallots, and mushrooms, chopped very small, adding a little salt and pepper; put them on a slow fire to fry a little, and place this seasoning upon the cut side of the gourd slices. Put the whole into a quick oven, with a little butter or olive oil; and, when baked a little, serve up the dish.

To dress Vegetable Marrow.—Take the fruit when about half grown; cut it length ways through the middle (if large, cut into three or four slices;) take off the outer skin; cut into small dice, about half through one side of the slices; then scrape a little of the fat of bacon, and put it into a saucepan, with a little parsley, shallots, and mushrooms, chopped very small, and let them fry a little; then add about a table-spoonful of flour, with a little salt and pepper, mixed altogether; then put slices of vegetable marrow into a stewpan with a cover, and put the fried seasoning over the slices, and let them stew on a slow fire, with a little fire on the cover. When enough done, serve up.

The Society's silver medal was given to Mr. Crichton for this communication; it should have been given to the cook.—*Louden.*

The utility of gathering unripe Tomatos, and maturing them on the Shelves in Hot-houses.—The tomato ripens with difficulty on the open walls in Staffordshire. About the 20th of October, Mr. M'Murtrie cuts all the fruit that may have ripened and the best-swelled green fruit. The latter he places in a stove or hot-house, and in three weeks or a month they ripen as well, acquire as fine a colour, and are as good in every respect, as if they had come to maturity out of doors. Another gathering, to be treated in the same manner, was made about the end of October. Those who have not a hot-house may hang them up in a warm kitchen. The consumption at Shrugborough is about two bushels a year, which are produced by about 80 plants.

Budding the Peach upon the Apricot.—In 1824, Mr. M'Murtrie inserted a quantity of peach-tree buds in the branches of Moor Park apricots, which made fine healthy wood, and in 1826 produced fruit far superior to that on the peach trees. Mr. M'Murtrie is not prepared to say from what cause, but merely speaks as to the fact. In a postscript, dated April, 1828, he states that his expectations were fully realised by crop 1827. "The fruit was larger and finer than that on the peach trees; which confirms me in the opinion that the practice will be of utility."

ART. CXXXI.—*Extracts from the Twelfth Annual Report of the New-York Institute for the Instruction of the Deaf and Dumb.*

This Institution, under the supervision of an able and philanthropic Board of Directors, with Mr. Harvey P. Peet, as Principal, fully meets the expectations of the public. We are pleased to see manual labor introduced. The following are extracts from the Report.—[Ed. N. Y. Farmer.]

Moral and Intellectual Improvement.—That instruction improves the moral sense and exalts the intellect of mutes, there can be no doubt. Frequent and gratifying instances occur. But constant vigilance is necessary, and sometimes also judiciously applied correction, to arrest the evil propensities of human nature, which in the uninstructed mute, are not under the guidance of reason or revelation. Hence they often exhibit bad tempers, habits and dispositions, which require patience and perseverance to counteract and ameliorate. Employment in some useful occupation is also necessary, to improve the moral faculties, and prevent the evil consequences of idleness in such a community. This has not been neglected, but it has not yet been carried to the extent required and intended.

EMPLOYMENTS.

Employment of the pupils out of school has been a subject of solicitude and inquiry. A portion of that time must necessarily be devoted to study, and yet several hours in the day would still be consumed in idleness, if some useful occupation for the pupils were not provided. The Board has therefore engaged in the working department a professed gardener, tailor, and shoemaker. A number of boys, with the approbation of their friends, have chosen to work at one or other of the two last trades; and, during the past season, four boys were regularly and alternately detailed for one week, to assist in the garden out of school hours. The directors are satisfied that all the pupils who are able should be occupied in some useful employment, when not engaged in study. But to extend the working department into numerous arts and employments, with a few at each, and a master of the trade to direct, would necessarily create much additional expense.—The directors, however, contemplate some others, that the choice of pupils and their parents may not be confined to so small a number. Weaving has been proposed, as an employment in which both males and females may be advantageously employed.

The female mutes are regularly occupied in sewing when not otherwise engaged, and two well qualified females are constantly with them to help to make and mend their clothes, and to instruct them in the use of the needle. It has been the practice, regularly and alternately, to detail four of them to assist for one week (out of school hours) in the domestic concerns of the Asylum, reserving the more laborious work for the hired persons.

The Board anticipates making an attempt to cultivate the mulberry and rear the silk worm, which, being agreeable and light employment, may be conducted principally by females. The late improvements in Europe of sowing the mulberry seeds annually, and using the leaves of the young plants to feed the worms, will admit of the experiment's being tried and the result determined, without waiting for the growth of the young plants to trees.

GARDEN.

In the working department, the garden has been the most useful and productive. It has been well cultivated, and furnished much light work for the male pupils, who have been amused while thus employed, and gratified with the use of roots, fruits, and vegetables which they themselves have assisted to raise. Nearly four acres have been under cultivation during the past season, producing several successive crops. Every vegetable production usually cultivated in gardens has been raised, and the pupils have enjoyed them in abundance while they were fresh and good; and a large stock has been laid up for winter supplies. When a surplus quantity of perishable articles was on hand, it was sent to market and sold. The amount received from such sales is stated in the treasurer's account; but if we add to it an estimate of the value of articles consumed during the summer, and of those laid up for winter, the sum would more than pay the expenses of the garden.

ART. CXXXII.—*Chloride of Soda.*

We invite the attention of our readers to the following directions, for the use of the Chloride of Soda. This substance is cheap, and may be had at all the principal druggists in this city, and should be kept by every merchant and physician in the country. The directions are extracted from Silliman's Journal.

[*Ed. N. Y. Farmer.*]

Great advantages have been obtained from using the chloride very much diluted in water, for all the purposes of the toilet. In a dose of from 20 to 25 drops, it acts as a bracing and preserving wash, prevents the spread of herpetic eruption, and cures certain diseases of the skin.

Sprinklings of the chlorated water will be more especially necessary whenever an epidemic or contagious disease prevails; they should be made in order to guard against the deleterious influence arising from the neighborhood of marshes, the rotting of flax, hemp and the like. They will likewise be serviceable in the disease of domestic animals, in places where silk worms are raised; finally, in all places where the air becomes charged with exhalations, which on being accumulated produce fatal effects.

By sprinkling of water containing a fortieth of the chloride, one may disinfect, in a moment, the filthiest kennels, sewers and drains, vaults, slaughter-houses, markets for meat and for fish, manufactories for glue and for cat-gut, and generally all places that are infected with animal exhalations.

Butcher's stalls should be sprinkled, in the hot season, with the chlorated water, and by this means, the meat will be preserved for a long time unaltered.

In butteries, especially in the country, where it is often necessary to lay provisions for a week, the meat may be preserved, if care is taken to set on the floor a vessel containing some of the chlorated water, which it will be necessary to renew daily. If the meat has become fœtid, a simple immersion in water containing a fortieth of the chloride, will neutralize the smell, and after being washed in pure water it may be cooked and eaten without injury to the health.

[For the New-York Farmer.]

ART. CXXXIII.—*An account of the Blooming of Fruit Trees, in the months of April and May, in the years* 1827—8,9, *and in* 1830—1831, *at Newburgh, Orange county, N. Y.*—By A NEWBURGH FARMER.

1827. April 8. Apricots show blossoms. 14. Peaches, Plums and Cherries. 17. Apples. The thermometer varying the last week, from 48 to 60 degrees.

1828. March 29. Apricots and Peaches, show blossoms. Ther. 60 degs.

April 20. Peaches unfold their blossoms. The three weeks preceding this day, have been wet and cold.

May 1. Plums, Pears and Cherries, in full bloom.

1829. April 20. Apricots, Peaches, Pears, Plums and Cherries, show blossoms.

May 13. Apples.

1830. April 18. Apricots and Peaches, show blossoms. 21. Peaches and Cherries open their blossoms. 23. Pears and Plums. 26. Apples show blossoms—The thermometer varying the last eight days, from 55 to 58 degs.

1831. April, 17. Peaches and Plums show blossoms. 24. Peaches, Pears, Plums and Cherries, in full bloom—a great show of blossoms.

May 1. Apples a few—Thermometer 51 degs.

The Pears and Cherries made a vigorous show of blossoms; and the Pears, at present, promise well; but the Mayduke Cherries, in my garden, have yielded but a very small quantity of ripe fruit. A great portion of the Cherries fell when nearly ripe; and those which did ripen, became mouldy, and decayed immediately after. I observed, that the fruit on the south side of the trees suffered the most. The general failure of the crop may, perhaps, be attributed to the unusually hot weather, we had, on the 29th and 30th of May, when the Thermometer in the shade, stood at 80 degs. and not much below, for several of the succeeding days.

The past winter was unusually severe. The ground was generally covered with snow, but hard frosts preceded the snow, and froze the earth to a considerable depth. My apricot trees, about ten years old, have perished. Plums do not appear to have been injured. Peaches have suffered considerably, in the shoots of the preceding year, yet, from present appearances, we may expect a good crop of fruit.

Apples will yield but a light crop.

Wheat looks well, and our hay harvest will be considerably abundant.

Newburgh, June 25th, 1831.

[For the New-York Farmer.]

ART. CXXXIV.—*Remarks on 'Our Neighborhood.'*

There is much vivacity in the extracts from 'Our Neighborhood,' and I have been pleased and instructed by many of the remarks; but I do not like the alloy with which these good things are blended—I mean that caustic disposition which is but too broadly pourtrayed.

For example: "no one tells the truth about grapes. —I have seen *men of the strictest integrity* so mortified at the failure of a crop, that they have resorted to *every species of prevarication* to deceive." A very demoralizing business indeed must be the culture of the vine! Truth and Candor take their flight like *Astræa* before its withering influence! Men who would suffer martyrdom for a good conscience, become the direst prevaricators——to conceal a bunch of mildewed grapes!

Neither do I like such despondency as follows: "I shall follow young Haywood's mode this year at least, and if I do not succeed, then I must give up the culture of grapes." *Dont give up the ship.* We can afford to take some pains to have such fine fruit. Suppose the vine don't bear well "after it is 4 or 5 years old," we can keep enough of *younger plants* that will bear. Who expects an indian corn stalk to bear after it is *one* year old?

I am not prepared to believe that "*in the disease, yellows, the roots of the peach tree remain perfectly healthy*; and in seven cases out of ten, when a diseased tree was removed to a *moist soil* the trees recovered." I must consider the whole of this statement founded on mistake. I have seen trees injured by the worm, and assume a debilitated aspect, which afterwards sent up green vigorous shoots from the root; but *the yellows* is a disease *too deadly* to leave any vigour in the *root* after the *branches* are destroyed. That the worm would not live in a "moist soil" if occasionally inundated, I can readily believe.

Notwithstanding the wide spread destruction that *the yellows* has made, very few even at this day, appear to understand the unerring symptoms of that disease. Let me say *when the fruit ripens prematurely,*—from 2 to 4 weeks before the ordinary time, *—and the pulp is marked by purple discolorations,* then BEWARE.

A DISTANT SUBSCRIBER.

ART. CXXXV—*Credit, and Mortgaging Farms.* By the EDITOR.

It is a very common saying that credit is as good as capital. This is true in part, on the supposition that certain success attend the operations of business done on credit. But, in the mutation of human affairs, there are so many contingencies beysnd the ken of sight, that but few instances of credit speculations occur, in which all the attendant circumstances can be so clearly seen as to render them absolutely certain of a successful termination. When the feelings are enlisted, and the expectations large, it is very easy to conceive how all the reasoning on the subject will come to a happy result.

Money is generally borrowed from one of two motives—with a view to speculate—or to relieve from present embarrasments. In the former case, the individual should compare his condition and circumstances with those of the generality of his fellow citizens, and ascertain if he is not already in the enjoyment of the goods and blessings of life in a greater degree than the majority of them. If he comes to the affirmative of the conclusion, he should resort to the oracles of wisdom, and inquire if prudence and the prospect of happiness do not require him to make more sure, and to enjoy that which he already has, rather than embark it all upon waters that ever are liable to violent winds and tempests, however calm and

inviting they may be at times. If on the other hand, the individual finds himself embarrassed—unable to bring his plans to a prosperous condition—having a prospect of loosing all that he has, unless he obtains more strength, there are, undoubtedly, cases in which it is advisable to borrow money. But even under these circumstances, let him look abroad on his fellow creatures, and see what a vast number of them live in the full enjoyment of health and vigor on a table pre-f pared at half, quarter, and perhaps, one tenth of the expense at which his is set. Let him look around him again, and endeavor to regulate his other expenses according to the standard of the wants of nature, and not to that of the circle of his neighbors in which he has moved. After having done all this, he will be enabled to judge with more propriety on the expediency of borrowing money. When farmers get in arrears, they are too much in the practice of raising money by mortgaging their farms, instead of selling off a portion, and reducing their expenses. They who have farms of two or three hundred acres, will generally prefer mortgaging them to one half their value, rather than sell half and pay off the debt. But the policy is most miserable; and he who does it, is sure to lead a life of anxiety, and very probably to have at death, his property entirely consumed to satisfy the claims of the mortgage.

[For the New-York Farmer.]

ART. CXXXVI.—*Rural Reflections.*—By S. F.

Agricultural pursuits, when not over laborious, are healthful, and consequently favorable to longevity.—Every farmer should endeavor to have a farm of moderate size and under a high state of cultivation. He will thus be enabled to have it under perfect supervision; and consequently have his mind at ease, which is an object worthy of much exertion and circumspection in the management of affairs.

Rural scenery is favorable to the serenity and elasticity of the mind. When the sun throws his rising rays on the new mown grass, and among the foliage of the woodland, there is something reviving and buoyant to the spirits. And, provided the labor of the previous day, has not been too fatiguing, the farmer enters upon the morning operations with renewed strength and energy.

All labor and no play makes Jack a dull boy. So constant bodily or physical exertion, without daily opportunities to relax the organs of the body, by exercising the powers of the mind, by varied reading and instructive conversation, causes the whole man to become like the tree, that grows in too rich a soil to ripen its fruit.

In looking upon a farmer, who has a fine farm, of fifty to a hundred acres, under a high state of cultivation, stocked with the best breeds of animals and having in abundance a great variety of the best kinds of fruit,—and with all, a little money out at interest, we consider him to be placed in the very niche of human enjoyment; yet, on entering his dwelling, and becoming acquainted with him, we shall, in much probability, find an uneven balance in the scale of mental and physical culture, and a predominance of some one quality of the temperament. Owing to a deficiency in the improvement of the mind, there is not a relish for that which constitutes the dignity of man—expanding views and rising thoughts. Or, perhaps, from some species of intemperance, there is some indulgence of aberration of mind that renders him less happy, and less pleasing to others. Or, what is more probable and more common, with persons in his situation, this aberration or predominance of temperament, arises from never having seriously reflected on the sum total of his character, and made any exertions to even down the protuberances. If, in our systems of education, the mirror of our temperament was more frequently brought before us; and the image compared with one of more beauty of expression and delineation, there would more frequently be found, in a beautiful and finely cultivated farm, an indication of the amiableness and happiness of the owner.

[For the New-York Farmer.]

ART. CXXXVII.—*Remarks on Mildew.*—By AMERICANUS.

Mr. FLEET,—There seems to be something very mysterious in the cause of Mildew, and I am not to suppose, though an atttentive observer, for many years, that what I have to offer upon it, will do any thing toward solving this mystery. We are now threatened, judging by past experience, with this disease upon our Grapes, which are generally about half grown, for the weather has been uncommonly cool and wet, with northerly winds, alternately succeeded by almost dead calms, and by high winds and rain. If, after rain, the fair weather is windy, so as to shake the vines, and force off the hanging drops, generally very large, rainy weather is less likely to be succeeded by mildew. So, also, vines that hang loose, swinging, exposed to the full action of the wind, have their fruit less affected, than such as are less exposed to this action. Where they are trained on an Arbor, and this is suffered to become very thick and shaded, the fruit on the under side, and where most confined, especially if in contact with the wood of the arbor, is first affected by mildew, and generally suffers the most by the disease. These are all facts learnt by experience, and they are something, but not all, for still there is much to be learned.

Why does the disease, in its first appearance, seize first upon some one berry, of a bunch, and that not always the under one, cover it with a thick coat of whitish dust, like mould, make it swell rapidly, in size, then shrink, with a cracked skin? I have noticed that berries about to be attacked, assume a more pale-green color, when partly grown, looking sickly, like a human face afflicted with intermittent fever, or the ague: and in 12 to 18, or 24 hours, having marked those berries, by little threads, have found them spotted or covered, with the whitish efflorescence above noted. That this is actually an effluent matter from the berry, in its first attack, I am well persuaded, though afterwards it may become a contagious disease, spreading from the parts first affected, by various means, and to extents very unequal, in various cases. If the weather soon become favorable, and the diseased berries are carefully picked off, and thrown quite away, the disease does not spread, and very little injury is sustained by the attack.

Contagion, to spread, must find predisposing causes for the disease, whatever it may be. I always very carefully remove the first diseased berries, and if the weather co-operate with my effort, see no more of it, that time, or perhaps for the season. If another, or other attacks recur, I fight them in the same way, as long as I can, with any prospect of success, and generally have less of the mildew than my neighbors, on a like *number* and *variety* of the fruit. Some kinds, it should be well observed, are much more liable to this disease than others. Such as are the most liable, I cultivate fewest of, because, very evidently, they are breeders of disease for other varieties or kinds, and of the less value. If high manuring and careful pruning and trimming, will not save the fruit from frequent attacks, I throw away those vines, whatever their character or reputation for fruit. Such has been the fate of my white Madeira, or Sweet Water, vines 2 to 5 years bearers, all dug up, and given away, to persons who are unwilling to learn, but by experience, and that their own.

Thus much, Mr. Editor, I have learned by experience. And now let me tell you, that, judging by the same principle, such varieties of the grape as are most liable to disease, ought not to be selected for cultivation. Grapes from foreign countries, especially from countries considerably south of ours, are the most liable, both to diseases, and the contingencies of the seasons, and therefore should not be relied on for cultivation. I know that this conclusion will be combated by the nursery men and dealers of our large cities, principally foreigners, or men of strong predilections for things of foreign origin, partly because of the high prices at which such things can be sold, as well as from motives perfectly honest and disinterested. Let them have their own notions, but let me, and all others, express the predilection, if such it be, for our native vines prove hardy and less liable to accident and disease, as well as for all such as merit this character, whatever their origin. I have vines, 5 years old, 4 and 5 years bearers, and great bearers, natives of our own forests, which bear fruit, that is acknowledged, by all who have seen it, as equal to any they ever saw, and which have never mildewed.—From 50 to 100 of these are in bearing this year.—Last year they grew among foreign vines, all of which had their fruit mildewed,—and these, with 5 or 6 other kinds, were perfectly fair. Such are the kinds that I select for cultivation, and would recommend to others. The excellence of their fruit, for the table, and for wine, has been adjudged by foreigners, from France, Italy, Greece, Spain and Germany, and by our own countrymen, many of whom have travelled in those countries. But,—alas! alas! they are 'American;' natives of our own country, hardy, bear the cold without covering, and there is no mystery about them; and, besides, the dealers in vines are overstocked with foreigners, and foreign prejudices. Gentlemen from Europe, who have seen the fruit on the vine, without knowing its origin, pronounce it to be the 'genuine Raisin Grape' of Italy, and the Levant, and South of France, the bloom colored Muscadel, known in each country by different names, but 'unquestionably of Asiatic origin.' June 30, 1831.

P. S. I will send you a basket of the *ripe fruit* of my vines, early in September. Some kinds ripen by the middle of August.

To the Editor of the New-York Farmer.

Sir, New-York, 4th July, 1831.

On the 55th anniversary of this *auspicious day!*—July 4th,—not only for the United States of *America*, but to our *fellow men* in every quarter of the globe, I feel a pleasure in handing for insertion the enclosed copy of a letter, received from the Messrs. Hurlbut, of Winchester, Conn. The tenor of it, I trust, will coincide with the opinion of the numerous readers of the New-York Farmer; as I am sure it must with every true-born son of *American Liberty!* I remain, Sir, your's respectfully,

John Fisher.

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Art. CXXXVIII.—*Devonshire Cattle.—Copy of a Letter, from Messrs J. & L. Hurlbut to Mr. John Fisher.*

Winchester Centre, Ct. June, 15, 1831.

Dear Sir,—Your friendly letter of the 6th inst. inclosing a copy of a letter you received from that distinguished friend of America and humanity, the Hon. Thos. Wm. Coke, was duly received. You will please accept our thanks for your friendly exertions; and you will not fail to transmit to Mr. Coke, our most respectful thanks for his kind offer to us, and at the same time assure him, that his name is well known in America, not only as one of the first Agriculturists in the world, but as one of her earliest friends!—as one who was associated with the great and good cause of American Independence! For this, his name will be remembered by posterity with gratitude—and to use the language of Dr. Mease, of Pennsylvania, in speaking of his present of Devon cattle, to Mr. Patterson, in 1819,—"*Mr. Coke richly deserves the everlasting thanks of every citizen of America, for his rich and valuable present of Devon Cattle, to one of her citizens.*"

In regard to the North Devons we are gratified to find, that their superior qualities are becoming better known. We have possessed them nearly eleven years and find them peculiarly adapted to our climate, and believe them to be, in all respects, much superior to any other breed of cattle in America; and we think we can justly adopt the language of Mr. Coke, on the subject of these cattle; applying to America as he did to Great Britain—"*There are no cattle to be compared with them, for purity of blood; for aptitude to fatten, for readiness as well as for the richness of their milk; and for work when required.*"

From their snug and tight built form, they have the appearance of rather a small breed of cattle—but, we know of no breed that have, upon an average, exceeded them in weight, when slaughtered; always exceeding their estimated weight, by those termed *good judges.*

In regard to the newly invented milk pans, the subject is of high importance in regions where the object of the dairy is butter-making. With us, during warm weather, the milk is made into cheese. We shall, however, feel disposed to try the experiment, when a favorable opportunity presents. We remain, Sir, respectfully, your most obedient servant,

S. & L. Hurlbut.

To Mr. John Fisher, 550 Broadway, N. York.

P. S. You can make such use of this as you please.

Art. CXXXIX.—*Boiling Peas.*

Mr. Fessenden.—After having taken pains to procure seed of the best varieties of vegetables, and been to the trouble to cultivate them too, it is very vexatious to have them either spoiled in cooking, or by any other means impaired in goodness, or flavor.

I am induced to make these remarks from my own experience, and if it should add to the comfort of any individual, my object will be realised.

Last spring at the proper time to plant early peas, it was inconvenient for me to attend to the business, therefore I said to myself, I will plant no early peas this year but depend on the market for the early, and when convenient, plant some for later use. Accordingly when the market began to abound with peas, I procured a mess—they were dressed in the manner usually practised in my family; but when I came to eat thereof I discovered to my disappointment, that they were destitute of all the good qualities of the pea.—I made up my miud at once to do without peas until my own were fit for use.—In the meantime I dined at an inn, where peas were served, they also possessed but little merit—but to-day I have had a real feast on green peas, which were gathered in my own garden, about *two hours* before dinner.

Now I will come to the point, and say what I might (but for a desire to be particnlar) have said at the beginning.

Green peas lose their sweetness very fast by remaining on hand after they are gathered; even one night is sufficient to extract much of their flavor. But here is a difficulty to which a large proportion of our city friends will be obliged to submit.—A word on cooking and I come to a close.—Green peas should be boiled with a little salt, in a very small quantity of water, so that no more liquor should remain when done, than is needed in the dish—for if a quantity of liquor is thrown away, much of the richness of the pea is wasted.

Another way of proceeding, which is probably as good or even better, is to take a piece of salt pork, and half boil it in a large quantity of water, and then, pour off until you have just enough left to boil the peas, calculating by the way, to retain just enough of the salt of the pork (with the help of the butter that may be used,) to season the peas. A Rustic, Newton, June 24th, 1831.—*N. E. Farmer.*

Art. CXL.—*Preservation of Sweet Potatoes, Apples, Squashes, &c.*

Mr. Fessenden—Many experiments having been tried in the vicinity of Boston to preserve the sweet Potato slips through the winter without success, I have thought the following observations may be acceptable to some of your readers.

After digging my sweet potatoes last fall, I packed a quantity of the slips down in a barrel with waste cotton, as is obtained at the cotton factories for making into coarse paper and batting, (at two cts. per lb.) with a layer of cotton and a layer of slips alternately, and then placed them away in a warm room, which we keep from freezing during the winter. On opening them in the spring, I found a part of them very fresh; but where they were too thick, they had created too much dampness and rotted. I also packed down two barrels of apples in the like mrnner, and found them in the spring much better preserved than any I ever before saw. I am informed that the New Jersey Quakers preserve their potato slips in leaves. As the cultivation of the sweet potato, is now becoming so general in this quarter, I hope and trust there will be some mode discovered to keep the seed without having to get them from New Jersey every spring And I feel confident the one given above will be successful. I am also inclined to think, that ground plaster, as was mentioned in your 48th number, will answer this purpose.

I believe it is not so generally known as it ought to be, how to keep winter squashes, almost any length of time wanted; you have only to hang them up in a warm dry room. I have them now perfectly fresh, and their flavor as good, or better than when they were taken from the vines. Any room were they will keep dry and warm through the winter, will preserve them. One may be seen in Mr. Shepard's bar room, at Concord, perfectly sound, which grew in 1829, and many of last year's growth. I will also call your attention, Mr. Fessenden, to the mode of cultivating early potatoes in Denbighshire, Eng. found in Loudon,s Gardener's Mag. vol. ii. pp. 171, and pp. 317; and I for one should be glad if you will give the substance of those two articles, in the New England Farmer, at your leisure, as the Magazine is in the Hort. Society's Library, you can refer to it at leisure. Yours &c. Edward Curtis. Pepperell, June 21, 1831.—*N. E. Farmer.*

Art. CXLI.—*Original Communications.*

1. We would wish every subscriber, in the course of every month, would make it a point to write one communication, on whatever occurred to his mind, even if it might be useful to only one in a thousand.

2. We wish physicians to write on the medical properties of plants, and to encourage the growth of indigenous, and to introduce exotic plants of every description—to give directions to farmers, in regard to health, &c. &c.

3. Lawyers would confer a favor on us, and on the agricultural community, by stating some of those laws more directly affecting farmers, and illustrating and discanting upon them,—and effects of government policy.

4. In Great Britain, some of the most practical and able essays on agricultural subjects, have been the productions from the pens of clergymen. They should favor us with moral essays on subjects connected with rural life, as well as the details of experiments, gardening and farming. One of the best practical pieces, that has appeared in the N. Y. Farmer, was from the pen of a clergyman, in a high literary station.

5. We should feel indebted to merchants, who would favor us with commercial intelligence—the practical operations of our laws, on the commercial and agricultural state of the country—the probable effects on our country, of foreign regulations of customs and trades.

6. Gentlemen and ladies travelling, officers of public and private vessels, and of the army, would bring us under special obligations, in giving us an account of the countries which they visit.

ART. CXLI.—*Exhibition of Rensselaer County Horticultural Society.*

The third exhibition of this society took place at the Rennselaer House, on June 1st. It was highly interesting and gratifying. The following is a list of the articles exhibited, and of the gentlemen who presented them.

Mr. Norton, of Lansingburgh, presented some fine peas, potatoes and ripe strawberries.

Mr. Woodham, of Troy, some fine peas.

Messrs. Kilby and Pierce presented peas, potatoes, and some of the fine long cucumbers, 11½ inches in length—also the white spine do., fine head lettuce, garden rhubarb, &c.

Mrs. Van Schaick, of Van Schaick's Island, presented a basket of fine strawberries.

Mr. Alexander Walsh, of Lansingburgh, presented peas, (Knight's marrowfat) strawberries, (Bourbon species,) three fine apples, potatoes, rhubarb, sea-cale, &c. &c.

Mr. G. B. Warren, of Troy, a beautiful variety of flowers.

Mr. Ballard, of Lansingburgh, presented a root of the double pheasant eye pink, 7½ feet in circumference, actual measurement, upon which were fifteen hundred perfect full blown flowers.

Mr. A. P. Heartt, of Troy, a splendid collection of rare flowers.

Mr. Alexander Walsh, of Lansingburgh, presented 38 varieties of cut flowers and plants in pots—of which we would notice star-fished flowered staphyle, sheepstongue aloe in flower, orange myrtle loaded with fruit, Campanula trachelium fl. albo, perennial coreopsis, Verbena multifida, white and blue valerian, ranunculus asiaticus, and fragrant double pink peonies. Some Cape of Good Hope plants. Also, cherry of all saints, three varieties of flowering cherry, weeping cherry flower and fruit; bloody dogwood, variegated, sweet scented and black willow, silver abeal, broom in flower, (Spartium,) service tree, with variegated box, also a pleasing variety of indigenous flowers.

ART. CXLII.—*Beneficial Effects of Horticultural Societies.*—[Extract of a letter to the Editor of N. York Farmer.]

The good effects of our Horticultural Society begin to be seen and experienced. Our market has been well supplied with Asparagus, Radishes, Cucumbers, Peas, Beans, Beets and Potatoes.

Asparagus from April 12. Radishes and cucumbers plenty, cheap and good, since May 10. Marrowfat Peas, June 4, $2 per bushel, are now plenty at 50 cts. Some 10 or 12 years ago, Peas were considered a great rarity, the 4th July. We have had many to come 30 miles, to our village for peas, to ornament a July dinner table.

Mr. Norton, of this place, has planted the second crop of peas, from the seed of the first; and my second is now coming up from the seed of my first peas.

Mr. D. Norton raised 1388 bunches of fine radishes, from 15 rods ground, which produced him $41 64 cts. These, on the 22d of May, were all off the ground, which was again planted. This second crop has given place to a third, which is very promising. This is the way we go on, and our society is the grand spur. Our Mulberry and Silk Premiums have caused much competition; good will undoubtedly grow out of it; one of my neighbors has now feeding, rising of six thousand silk worms, and has a fine prosperous nursery of white Mulberry trees. L.

Lansingburgh, June 23, 1831.

[For the New-York Farmer.]

ART. CXLIII.—*Horses and Horse Racing.*—By AGRICOLA.

So much attention has been bestowed, of late, particularly in our Agricultural and Horticultural papers, upon the 'breed, pedigree, bottom, speed and performance,' of the most distinguished *Race Horses*, that I fear, either, that the Farmers will think horses of *speed* are the best for the *plough*, or that they will suppose those who write for, and conduct those papers, have fallen into this error. There is very little danger, that the real and substantial Farmer, will select *race-horses* for his *plough*, or *wagon*, or for any of the *labors* of his *Farm;* because, generally, they have the good sense to discriminate, in matters of such commanding importance. There is danger, however, lest, by the high prices paid for a Racer of established character,—*one* in a *thousand*, like the *prizes, worth having*, in a *Lottery*,—they do not run into a sad mistake, in selecting the stock to breed from.—There is not, in the characteristics of the Grey-hound and the Bull-dog, a clearer indication of the service for which each is formed, than in most horses, well adapted for, in the one case, the 'sports of the turf,' and, in the other, for the ordinary labors of horses. There are racers, I know, well ribbed out, having great muscle, speed, wind and bottom, as the phrase is, and so there are short, thick-set men, who are great travellers, and some great walkers, because practised in this way: but I contend, that what makes a horse, in build and form, a fleet racer, disqualifies him for the steady labors and actual drudgeries of a life of habitual exertion. An elegant dancer, in the school of fashionable life, must be 'of an elegant form,' tall, slim, straight as a bean pole, with very narrow shoulders—too narrow for strength and for steady effort, either of body or mind. When a couple, so formed, dance together, you hear the notes of admiration from all parts of the room, and forget that these 'elegant forms,' are not adapted for the work of life. If you would hire a servant, or laborer, you look for strength and agility, with a firmness of muscle, and a form—suited to the occasion, knowing that the bones are the levers by which the muscles exert their power, under the control of the mind. So, from dancing and the 'sports of the floor,'—a healthy and agreeable exercise,—let us return to the 'sports of the turf,', and apply the above observations. Horse-racing, I contend, only has a tendency to fix a high value on race-horses, and that racers are necessarily not good laborers, not workers, framed for work, but for sports, and these of a character altogether repugnant to serious and sober-minded christians, to say nothing of moralists and philosophers. I would caution every Farmer, against the idea, that, because a horse has fleetness in the race, he may be good of

work, a thing as repugnant to reason as to expect of a butterfly to make honey, or of wings to become legs and hands, locomotive and laborious.

In no one print, perhaps, will it be so difficult to make all men see that a race-horse is good only for racing; or, there is none which the advocates of horse-racing will so labor, as to try to come at speed in the race, with good qualities for use under the saddle. They often urge, that if a horse be a good runner, and have speed, with wind and bottom, he must be a good saddle horse. The reverse of this, however, happens to be true, judging by my own experience, and in this there are thousands of concurrent testimonies, among persons who have had fair trials of breeds, celebrated for swiftness in the race. They cannot stand a long journey. They may prance elegantly, about your door, but they sink under the fatigue of habitual effort, soon lose their condition, grow lean, lank, jaded, lose their elasticity of muscle, and become exceedingly unsure footed, tripping the toes, and stumbling, and falling. In harness, they fail much faster than horses of less speed; and, to speak plainly, I consider race-horses,—your 'high bred, full blood stock,'—good for nothing else but running, suitable only for horse thieves and vicious sports.

It may be assumed as a truth, in relation to all animals, that those of the greatest elasticity of muscle, are the most sensitive, and of course the more delicate, and likely to suffer by diseases. No runner, of all that I ever saw, can be kept in flesh; in what a Farmer would call 'good condition,' if put to the daily performance of the work of a common horse, accustomed to daily labor. If such be the fact; and I state it from my own immediate observation,—this, is proof enough, and it need only be known, to keep Farmers from stocking their Farms with horses celebrated for their speed only. At a time when so much is said about races and horses, for the race, with pedigrees, as long as those of a decayed nobleman, I think it proper to interpose a caution, and hope it may be of some use, well knowing that useful horses, as a standard stock, are of much more ready sale than useless ones, however high priced one in a thousand may prove to be, for a very bad business.—There is a kind of contagion in example, against which we should all be admonished, in order to guard us against its influence. We may not all be subject to like exposure. Such of us, it is to be hoped, as have seen the most of idle and vicious sports, in which men degrade themselves even below humanity, have seen enough to warn us against cock-fighting, bull-bating, horse-racing, and such like cruelties, as downright barbarism, on a little reflection upon what we have seen. He who has seen a 'scrub-race,' got up by drunkards and gamblers, even of ordinary horses, has seen an epitome of one the largest 'show' of this sort, your 'New-Market,' 'Union Course,' and other celebrated names of the 'sports of the turf.'—To be sure a high bred gentleman, like a 'high bred horse,' carries a different exterior, while winning or losing; but the interior is much alike in both cases, because the actuating principle is the same. No rational, sober and sound-minded parent, would encourage his son to engage in such scenes.

One other topic, and I will detain you no longer.—The newspapers, anxious to cater for all sorts of reading appetites, are greedy for news and wonders!—Thus it happens, very thoughtlessly, that every account, of every horse race, is copied into every paper, and thus the contagious influence against which I would admonish you, is carried into every family. Children read them, before being capable of thinking of any immorality in the practice, or of any cruelty, and only think of the show, the crowd of people, and the ideal sport. If any Printer hear me, or any Father, or any Farmer, or Vender of Horses, he will do me the justice to reflect upon what has been said, thus compensating all of us for the time consumed.

June 21, 1831.

ART. CXLIV.—*Miscellaneous, Original and Selected.*

A Comparative View of the Production and Consumption of France and England.—The following table is copied from a late number of the *Messager des Chambres.* [The value is given in francs.]

Objects of Comparison.	*France.*	*England, Ireland & Scot'd.*
Inhabitants,	32,000,000	22,000,000
Hectares land in cultivation,	47,000,000	20,000,000
Gross produce agriculture,	4,678,708,000	5,420,425,000
Net produce,	1,344,703,000	2,681,150,000
Produce exported,	149,050,000	75,725,000
Produce consumed,	4,529,658,000	5,344,700,000
Individual proprietors,	19,000,000	8,892,000
Families, proprietors,	5,804,000	1,778,000
Average produce of a hectare,	117	270
One cultivator produces on average,	246	609
Individual manufacturers,	6,352,000	11,399,856
Produce of manufacturers,	1,820,000,000	3,568,000,000
Average produce of each person,	286	316
Produce industry exported.	260,000,000	810,000,000
Produce industry consumed,	1,560,102 000	2,757 500,000
Each inhabitant consumes, on the average of products of industry,	48	125
And of agricultural produce,	141	242

Important to Seedsmen.—A case very important to seedsmen was tried at Kent Assizes, to recover damages for loss sustained by the plaintiff, in the purchase of six quarters of pease, which were warranted by the defendant (Mr. Milligan, a seedsman at Woolwich) as "Nimble Taylor Pease", but which on being sown, did not arrive at maturity till long after the period usually allowed for their growth. The genuine "Nimble Taylor" were sown by a neighbor, and had actually podded a fortnight before the plaintiff's, who also lost the season for turnips. Verdict for the plaintiff, damages £187 10s.

To Cure Hams.—A friend recommends the following receipt. He ate hams preserved in this way, in May last, and found them superior to any he had ever before eaten.—Take one pound of salt, one ounce of salt petre, well pulverized and mixed, with about two quarts of molasses, rub the hams thoroughly with this mixture, lay them flesh side up, and let them remain for 18 or 20 days.

Pulverizing the Soil.—More depends on pulverizing the ground than most tillers are apt to suppose. If a seed is closely pressed in a well pulverized soil to the depth of a quarter or half an inch it will, in *ordinary* weather, sprout readily and become a healthy plant. In this case the young leaves immediately find their way to their proper element, and the roots which are more numerous, penetrate more down in proportion to the moisture in the ground. If the ground is well harrowed with the common harrow, and then before sowing, with a light one having the teeth as close as they possibly can be to prevent dragging, and the same one used after sowing, we should suppose the work would be done much better than it is now by many farmers.

In Harvesting Wheat.—The best farmers both of Britain and the continent agree, that it ought to be cut before it become dead ripe. When the latter is the case, the loss is considerable, both in the field and stack-yard, and the grain, according to Professor Thaer, produces a less white flour. In ascertaining the proper state, Brown observes, it is necessary to discriminate betwixt the ripeness of the straw, and the ripeness of the grain; for in some seasons, the straw dries upwards; under which circumstance, a field, to the eye, may appear to be completely fit for the sickle, when in reality, the grain is imperfectly consolidated: and perhaps not much removed from a milky state.—Though it is obvious that, under such circumstances, no further benefit can be conveyed from the root, and that nourishment is withheld the moment that the roots die; yet it does not follow, that grain so circumstanced should be immediately cut: because, after that operation is performed, it is in a great measure necessarily deprived of every benefit from the sun and air, both of which have greater influence in maturing it, so long as it remains on foot, than when cut down, whether laid on the ground, or bound up in sheaves. The state of the weather at the time also deserves notice; for, in moist, or even variable weather, every kind of grain. when cut prematurely, is more exposed to damage than when completely ripened.—*Ency. of Agri.*

Rye.—According to some, rye is a *native of Crete;* but it is very doubtful if it be found wild in any country. It has been cultivated from time immemorial, and is considered as coming nearer in its properties to wheat than any other grain. It is more common than wheat on most parts of the continent; being a more certain crop, and one which requires less culture and manure. It is the bread corn of Germany and Russia. In Britain it is now very little grown; being no longer a bread corn, and therefore of less value to the farmer than barley, oats, or peas.—*Ency. of Agri.*

The Population of Lynn Mass. is over 5,000, nearly all of whom are supported by the shoe business. From 1,200,000 to 1,400,000 pairs of shoes are made annually in the town, of an average value of 75 cents per pair, making nearly $1,000,000. The females of the town earn more than $60,000 annually by binding and ornamenting shoes. Millions of low priced fancy shoes have been sent to South America, and sold at a profit. There is a chocolate manufactory in Lynn, which make 60 tons of chocolate in a year. Lynn fishermen at this time bring in 6,000 pounds of fish daily.

Prices of Zinc Pans.—Mr. Fleet, I am desirous of making an experiment with the newly invented, Patent Zinc Milk Pans and Kettles, so strongly recommended by Mr. Fisher, at my residence yesterday. I wish to be informed the prices at which the various sizes are sold at the Factory at New-York, by the ingenious discoverers and proprietors of these articles.

Your insertion of this request, at your earliest convenience, will much oblige one of your subscribers.

A Dairy Farmer.

New Haven, Ct. June 28, 1831.

We comply with our correspondent's request, and beg to assure him, that an Agent for the sale of the Patent Zinc *Hollow Ware*, will be forthwith appointed, at New Haven, and in every City and considerable Town in the United States. Editor.

Insects in Sugar.—Wrap a piece of gum champhor in a clean linen rag, and place it in the sugar tub. Not an insect can be found in the sugar an hour after.

New York Cattle Market,—Monday, July 4, 1831.—There were 600 Head of Cattle at Market, and in general, of that description of *size* and *quality* very suitable for the hot weather season, namely, not *extra fat or large*, yet, of such quality we trust, that the grazier, drover, and butcher, as well as the consumer, would find the most profitable.

The prices on an avorage not over $6½.—Some very prime Oxen however brought 7¼ per hundred; but these were of the size and quality above named, *most suitable for the season,*

Sheep and Lambs about 400—on the average $2, 25; and some sold at $2,50—and these were also more suitable for the season, than those few extra fat *Bakewell Sheep* at Market last week.

Cows and Calves very few, varying from $20 to 35.

No Swine at Market.

Hay.—New Hay, 40 to 50cts.; Old, 50 to 60cts. per hundred, and very little at Market, as the Farmers are now busily employed on their Farms. [Reported for the New-York Farmer by Daniel Drew.]

New-York, Grain, Flour, Provision and Wool Market, July 6.—The market for Wheat remains much the same. The mills in this vicinity have been idle for some time, in consequence of want of wheat. The last sale last week, were at 106 cts. for good Western Wheat; Northern is quoted at 95 to 100; Virginia, 90. Northern Rye, 72 to 74; Southern, 65 to 67. Oats, 37 to 38. Northern Corn, yellow, 68 to 70; white, do, Long Island, 75 to 77.

Flour has made a little advance. New-York superfine, $4.87 to 5.00; Troy, 5.12 to 5.25; Southern, 4.50 to 5.00. Rye Flour, 3.70. Provisions without change. New Wool continues to come in. Common fleece, washed, 45 to 50; Merino, do do, 50 to 75; Lamb's, first quality, 55 to 60.

The arrival on the 4th, bringing Liverpool dates of June 1st, has not materially affected the prices.

ART. CXLIV.—*Mineral Productions, Climate, and Soil of the Huron Country.*

This is south and south-west of Lake Superior, west of Lake Michigan, north of Illinois, and east of the Mississippi. By late treaties with certain Indian tribes, the Indian title to 8,000,000 acres of land situate within this teritory has been extinguished. The great lead mines are on the south part. These mines have been worked only about three years, by comparatively few persons, under every possible disadvantage, and almost thirty millions of pounds of lead have been made there! The mineral used by the miners is a sulphuret of lead yielding from 56 to 87 per cent. of pure lead. It is found in veins invariably running from north to south, or from east to west. There is one vein twenty rods long and sixty feet wide, and extending downwards to an unknown depth, which is filled with ore that is nearly pure lead.

The lead occupies about one hundred miles square of surface, except about twenty miles by four or five of copper ore, included within the aforesaid one hundred miles square. Thirty millions of pounds of lead have been made in the mineral region, and not more than one mile square of surface has been opened for ore! Without opening one new mine, 30,000,000 lbs. more of lead might be made there.

The country now ours by the late treaties, will forever afford lead enough for this nation at as low a rate as can be desired.

A strip of land 20 miles by 4 or 5 miles, in which Mineral Point is situated, is filled with a sulphuret of copper, 170 tons of which had been dug, on the first of September last. Not having been smelted, its value is not yet tested, though its appearance indicates a rich copper ore.

Besides these mines, the only broken and sterile part of this Teritory adjoining Lake Superior, is known to possess copper mines. The great mass of pure native copper, it is said, lies in the bed of the river Ontonagon, which empties into Lake Superior on the south.

The climate of Huron is beyond the influence of the lakes, and is remarkably fine and pure, (remarks Mr. Caleb Atwater, who accompanied the negotiators in making the Indian treaty before alluded to.) The table land, east of the Mississippi, is about 2000 feet above the level of the sea. The streams of this region, copiously and briskly gliding over pebbles of cornelian, topaz, jasper, agates, ophl, and quartz, are as pure as crystal. Originating in springs, they are cool enough for drinking the hottest day in August. The Mississippi, from Rock Island to the mouth of the Ouisconsin, a distance of two hundred miles and upwards, and which forms the western boundery of the cedar territory, is on an average, about three fourth of a mile in width. The fish are abundant, of fine flavor, and furnish food for the Indians on the western shore of that beautiful river.

The Ouisconsin is about half a mile in width, and at low stage of water, is shallow and full of islands, and sand-bars; ascending 90 miles from its mouth, the whole surface appears covered with wild rice when in its season. Rock River is a beautiful stream. It has various branches which from their swift currents, must furnish sites for mills in abundance. Sun flowers and rosin weed (from the position of its leaves, the N. and S. points of the compass can be ascertained) abound, as also numerous flowers, shrubs, &c.

The soil of the immense prairies, is one for growing grain, &c. The prairie wolf, between the black wolf and the grey fox, infests all parts of the prairies, and is a very mischievous animal. The musk-rat occupies the lakes and streams.

The trees of this region are confined to the banks of the water courses, and to rough places, and oaks, red, white, and black, are the most common growth in high grounds, while in wet ones the botany is richer.

The mounds are lofty piles of rocks, in their natural position, except such as have fallen downwards from their summits. These piles lying in horizontal strata are very elevated, and may be seen in any direction.

Upon the organization of the territory of Huron, the seat of government will doubtless be at Green Bay, but the spot designated as the future seat of government in that territory, is somewhere near the Portage, between the Ouisconsin and Fox rivers.—*Rochester Daily Adv.*

ART. CXLV.—*Proceedings of the New York Horticultural Society.* [Continued from page 138.]

July 5.—Mr. Knox produced 12 gooseberries, 5 oz. 6 pwt.

Mr. Hyslop, from the garden of N. Prime, Esq., 12 gooseberries, 6 oz. 11 pwts. 9 grs.

Mr. Warner, 2 apricots, fully ripe, very fine.

July 12.—Mr. Neale, Delphinium chinensis, perennial Sunflower, Campney's cluster Rose, Noisette rose, Viola grandiflora, purple, Phlox paniculata, double white Larkspur, Passiflora cerula, and Plumbago capensis.

Mr. Wade presented 6 early free stone apricots, very fine.

Mr. Kinstry, a beautiful bouquet of flowers, consisting of a seedling Antirrhinum, purple scabiosa, perennial sunflower, globe amaranthus, a new variety of Southern wood, spiral Mignonette, Campanula ucranica, 3 varieties of Monardia, 4 varieties Hollyhock, &c. &c. Also, 3 ears full grown corn.

Mr. Smith, 2 early transparent apples.

REMARKS.—The most common plant in flower this month, is the sunflower. This belongs to the natural order, Malvaceæ, of which there are more than 20 genera, and about 400 species. This order embraces some of the most splendid and remarkable ornamental plants. The greater part of the order is clothed with stellate pubescence, and a common character to the whole is a reniform, one-celled anther. All the species abound in a nutritive mucilage, rendering the Hibiscus esculentus, in particular, a valuable ingredient in soups. The emollient properties of the Althea officinalis are good for catarrhs and pulmonary complaints. The straight shoots of the Sida micrantha are used, in Rio Janeiro, for rocket sticks. The fibres of some species are manufactured into cordage. The petals are astringent; those of the Hibiscus rosa sinensis are used in China to blacken leather and the Eye-lashes; cotton, Gossypium, one of the most useful plants belongs to this order.—*Ed. N. Y. Farmer.*

ART. CXLVI.—*Notice concerning the Garden of Fromont, translated for the American Journal of Science from the Annales de l'Institute Horticole de Fromont, for April*, 1829; by JACOB PORTER, M. D. of Plainfield, Massachusetts.

The Garden of Fromont contains a hundred and thirty arpents inclosed. Situated in the district of Ris, on the Fontainbleau road, six leagues from Paris, it extends from the great road to the Seine and overlooks a large and fertile valley, which is watered by this river, in front of the forest of Sénart. The ground, for two thirds of its extent, descends rapidly to the north. All the upper part is good soil for grain, mellow and a little sandy. At a little depth is found the plastic clay, beneath which is a bed of sand or marly chalk, in which lie blocks of millstone. The lower part is good soil for rye, of little depth, resting on a bed of river sand, through which the waters of the Seine are infiltrated and rise when the river is high. This alternate and frequent motion of the subterranean waters supplies a little the dryness of the soil, and favors the growth of the large trees. Some small springs, fortunately situated in the upper part of the garden, are sufficient for the purposes of cultivation, and contribute to the beauty of the scenery. The park of Fromont, planted only twenty-one years since, presents fine masses of trees and shrubs of every description. The scenery, in the interior, is simple and natural. The external views are rich and extensive; and, as the inclosures are seen from scarcely any point, the country appears to far greater advantage from the garden than the best drawings can represent it. One may observe very considerable masses of evergreens, of cedars of Lebanon in great numbers and very flourishing; and, on the downs at the north, near the manor, is a very fine specimen of the true larch of Caramania, raised from seeds brought to France by the naturalist Oliver, who describes it in the third volume of his travels in the Ottoman empire, Egypt and Persia. This fine cone-bearing tree began to furnish seeds in 1826, by means of which it may be multiplied indefinitely.

In the extensive heath grounds have been collected all the families of vegetables, that are designated in cultivation under the general name of heath plants.—These grounds have been laid out for their protection, and, at the north, some large masses of trees are destined to serve for their shelter, and the surplus waters from the higher grounds are conveniently distributed by means of tubes, cocks, streamlets and gutters, moistening the ground, so to speak, drop by drop, and preserving it, almost without the aid of manual sprinkling, in a state of constant freshness. It is in this factitious soil, entirely formed by art, and whose surface is estimated at about three acres, that the magnolias, azaleas, andromedas, and the different rosaceous plants will hereafter flourish; indeed, they already afford a rich supply of seeds.

Such was Fromont less than six years since, when the proprietor, having obtained, in the vigor of life, that leisure, which the shepherd of Virgil regreted to have known so late, conceived the plan of making of a simple garden of pleasure a special monument consecrated to the studies of horticulture and botany; but he perceived that such an enterprise, in the hands of an individual, could not be sustained and prosper, except by its own products, and that it would fail essentially, unless industry should come in, with all its activity, to the aid of science, which might, in its turn, contribute to the prosperity of the former. An establishment of industry was therefore immediately founded, not as an end but a means, as the most solid and necessary basis of that edifice, the future elevation of which could not be determined, and the profitable cultivation of duplicates without number, is becoming the honorable means and the best guaranty of the indefinite extension of the scientific collections.

Greenhouses were constructed. Their arrangement is such that they present, in some measure, by their extent, their conveniences and their connection, the appearance of a hamlet, whose roofs are all glazed. Their length is about two thousand feet; and they present all the varieties of exposure, that renders them proper for every kind of culture. Water is brought into them by leaden pipes, and distributed by cocks, that pour it into some reservoirs in stone, in lead and in zinc, placed in each greenhouse, in such a manner that it may be made to flow in one of the divisions only or in all the divisions at once. In this way it may be readily made to suit the temperature of each greenhouse.

These different preparations are employed for the support and propagation of a collection of vegetables, (many of which are still rare in France,) which amounts already, including those in the open air, to more than six thousand species and varieties. The number of duplicates raised in pots is constantly kept at about a hundred and twenty thousand. The part of the garden devoted to heath plants is considered by the best judges as the most complete in the environs of Paris. To give an idea of the rapid increase in this department alone, it is sufficient to state that there were raised the last year, under glass frames, forty thousand of the broadleaved Kalmia, and that four thousand azaleas are arranged in pots for the grafting of more than a hundred and fifty varieties, according to the method of baron de Tschoudy. This kind of nursery is protected from the sun and the winds by the long palisades of Thuygas, and watered by numerous furrows; and at the same time that it is happily connected, by the prolonged contour of its evergreen mass, with the general scenery of the park, it includes within itself very considerable resources, of which the nurserymen and florists, both at home and abroad, who come hither to furnish themselves with assortments, know how to avail themselves.

At a time when the scarcity and dearness of wood are more and more sensibly felt; when some writings of distinguished excellence have been published on the necessity and the means of arresting this constantly increasing evil; when a benevolent individual has come forward to encourage by his writings, his example, and his patriotic liberality, the cultivation, on a large scale, of the best resinous trees; when a grand company embraces, in a single speculation, the clearing and planting of nearly two hundred thousand acres, it would be a lamentable void, in the establishment at Fromont, not to furnish the first elements of this grand forest plantation. But, far from incurring such a reproach, we have, on the contrary, brought forward the subject and treated it in a manner fruitful and novel, by calling the attention of our planters to the employment of precious elements, which, hitherto too generally unknown or undervalued, have never been introduced, as most certainly they might be, into the

composition of our territorial riches. We wish to speak of those fine forest trees of North America, the oaks, walnuts, ashes, maples and pines, which our colleague, M. André Michaux, has described in a work, that ought to be in the hands of all planters; trees, whose various qualities might be brought under tribute in forming a good system of plantations and in the regeneration of our forests, as reason and observation, connected with elevated theories of physics and agriculture, already point out.

The summary ideas, that we have offered to the public on so important a subject, and that where at bottom nothing more than a corollary and application of the principles of cultivation and increase, are now, in some measure, brought forward and experimented upon in our own soil by some preparatory labors, the importance of which has been duly appreciated by enlightened persons, who have honored us with their visits, as well as by our correspondents. Innumerable seeds received from North America have begun to germinate in the soil of Fromont, and will permit observers to judge what great advantages, at the least expense and by repeated trials at different times as well as in different places, the mixture of the best forest species of America with our indigenous species would present in the primitive formation of large masses of wood. This inquiry is so important, the grounds, on which it would be interesting to make trials respecting it, are so extensive, the direction of the public mind in regard to plantations is becoming so decided, finally, the number of enlightened men, devoted and liberal, is so great in our beloved country, that, in order to favor and multiply experiments of this kind, our intention is to take as models, in this part of our labors, the grand nurseries of Scotland, which furnish to the kingdoms of Great Britain and the continent of the north the plants of forest trees in millions, at prices, that would seem comparatively trifling, and that persevering industry in their cultivation can alone explain; for it is in Great Britain and especially in Scotland that we must look for the finest and most useful examples of most horticultural establishments. And what interest have we but to do it? The bottom lands in France, whether belonging to individuals or the public, that are susceptible of being planted with wood, may be reckoned at millions of acres. It is, therefore, by millions that we must offer to proprietors and put into their hands, with instructions and conditions alike encouraging, the plants of all the trees, that are proper for adorning and making useful the places now wild and unproductive; sustained by public patronage the garden of Fromont will be able to effect this. We attach to this part of our enterprise an importance proportioned to its high utility, and we are so much the more encouraged in it, as we shall be guided by the talents and experience of our colleague, M. André Michaux, whose observations and works we shall often have occasion to cite. It is well known that it was not as a botanist merely that he studied the vegetables of North America, but that he applied himself to observe and describe their specific qualities and economical uses. With his name and his efforts are connected all the essays made in France and in Germany for the naturalizing in Europe of American trees. It is to him that the inhabitants of the United States themselves have begun to owe a more perfect knowledge of their own riches; and his benevolent co-operation will be sufficient to recommend to public interest the exotic part of the forest establishment, that we propose to form.

But it is not enough to furnish proprietors with new sources of wealth and enjoyment; it is necessary that they should be taught how to use them. In an address delivered at the last public sitting of a society that has been obliged to suspend its useful labors, we attempted to show of what importance horticulture is to every one, and would be to us, such as has been conceived, brought forward and practiced before us, an enlightened and liberal nation, and what would be the advantages of its union with the kindred sciences, that is to say, of practice with observation, of labor with study, of intelligence with industry. Soon afterwards we had the happiness to see formed a Horticultural Society, similar to those of England. It shed around a sudden light; its utility was understood; the object of its labors was appreciated, and new ideas gave it favor. We are happy this day to connect our institution with such favorable circumstances, and to meet new wants, which are most sensibly felt. We will concur with all our power and all our devotedness to diffuse, for the benefit of proprietors, instruction among laborers; to inspire for the benefit of laborers, the taste for cultivation among proprietors. This taste is the most natural to man, the best adapted to interest him; it is that, which connects itself most happily with serious ideas by what it has of reality, with virtuous pleasures by what it has delightful and pure.—There is certainly no lack of materials for horticulture. Vegetable matter, in its application to the wants of man, is the theatre, on which are displayed two equally useful branches of industry, agriculture and horticulture. These two branches, so nearly related to each other, are enlightened, in their parallel progress, by a series of general ideas, equally applicable to both. But agriculture operates only on large masses; its labors are extended, but uniform as the plains it cultivates; and its meditations, serious and peaceful, still leave much leisure to our minds. Horticulture, on the contrary, upon a theatre less vast, occupies and charms us by the elements that it employs, the processes, that it invents, the experiments, that it undertakes, the success, that it obtains. Its attractive studies are constantly animated and sustained by variety and interest; and when it has, like agriculture, loaded us with real blessings, its cheering pictures come once more to embellish our dreams, while the laborer fatigued, finds only heavy slumbers on a glebe too often rebellious.

SOULANGE BODIN.

To the Editor of the New-York Farmer.

SIR,—I enclose you the following letter, which you will please give an early insertion. It was first published in the Courier and Enquirer.

FELIX PASCALIS.

New-York, July 9, 1831.

ART. CXLVII.—*Morus Multicaulis.—To Felix Pascalis, M. D. Hon. Member of the N. Y. Horticultural Society, and of the Hamilton Co. Agricultural Society, &c.*

Cincinnati, June, 20, 1831.

DEAR SIR: I have at last the pleasure to inform you that the *Morus Multicaulis* you so kindly persevered in sending to the Agricultural Society,* has ar-

rived safe and is in fine order, having carefully planted it agreeably to your directions, it promises to reward all our labour and care by the luxuriance of its growth. At present it is planted in the garden of the Hon. Jacob Burnet, under the superintendence of his gardener, who is a regular artist.

From the texture of the leaves, it strikes me that this plant will be a valuable acquisition to our country, in feeding the young worm, being even more delicate than the white. In this country, however, the Morus Rubra, when cultivated whilst the trees are young, frequently have leaves not much inferior in size to those described as belonging to the Multicaulis, though of much coarser texture. Should opportunity offer, I will do myself the pleasure of sending you a sample.

On the 15th and 16th inst. we had an agricultural exhibition. The display of horses, neat cattle, and implements of agriculture and horticulture, was very gratifying. In the other branches, although some very fine articles in each were presented, we could have wished for a greater number; but upon the whole, the exhibition was very encouraging, as it served to evince increasing attention to improvement, and furnished attraction to about forty thousand people who were present on the occasion.

I remain, with much esteem,
Respectfully yours,
D. C. WALLACE.

* The Doctor had sent one before, which, during the gales of January last, was washed overboard.

ART. CXLVIII.—*Bone Manure.* By the EDITOR.

In the city of New-York, there are, at a moderate calculation, 1000 head of cattle butchered in a week, or 52,000 in a year. Each of these has about 140 lbs. of bones, amounting to 7,280,000. If to these we add those of sheep, swine, calves, and fowl, the sum will be at least double, 14,560,000. These ground to dust, and distributeted at 25 bushels to the acre, would manure not far from *eight thousand acres* of land. If bones can be collected in this and the neighboring towns, shipped to England, there ground and bought by the farmers as a valuable manure, certainly they should be appreciated by the farmers in this country. We want a mill for the purpose of grinding them in the vicinity of this city. We see by the American Farmer, that a mill is about to be erected in Baltimore, to be propelled by steam. In former numbers we have given information on this subject. But as farmers, as well as others, must have line upon line, we give the following from the report of the Doncaster Agricultural Society of England.

The degree of utility to be derived from this kind of manure, depends upon the different soils which vary not only in character, but on other particulars, such as moisture and quality, and upon its mode of application, as the particular stage of cropping it applies to; at what period of the year, and again whether raw, or after a process of manufacture, in what quantity and what size, and whether broadest or drilled. A long continuance of experiments, under the eye of judicious observers, can alone afford a safe ground of conclusion, as to the efficacy of boning, and as to the proper methods, and "where a course of practice so long established as the use of bones, has furnished such an amount of experiments, all doubt," says the report, "may be at once discarded."

The returns, with only two exceptions, concur in stating the manure to be highly valuable, and on light dry soils, superior to farm yard dung and all other manures. Upon this very thin sand land, its value is not to be estimated. It is not only found to benefit the particular crop to which it is applied, but extends through the whole course of crops, and even in the succeeding courses, its effects are visible in the improved quality of the land, amd the efficiency of a smaller quantity that would at first have insured a crop. On dry lime stone, the results are equally favorable—on light loams it is preferable to the ordinary dressing of farm yard dung—in the heavy loams and clays the experiments are unfavorable. It is laid down as a necessary qualification in a soil for bones, that it should be dry. And the committee on this principle, consider that the clay soils are too moist to receive any considerable benefit from bone tillage. Upon peat soils, previously laid dry, the advantages of bone manure are reported to be very striking; two unfavorable results corroborate the soundness of this principle just mentioned; the peat was moist. The effect of the manure upon gravels is differently stated in different reports, but the same principle accounts for this conflict of opinion—a gravelly soil may embrace every variety of texture and quality, from the light dry sand, to the water-logged yellow clay, preserving in each the necessary admixture of stones and grit.

Striking testimony is furnished as to the durability of this manure; one farmer says, "on a field, part of which was boned 40 years ago, the crops were visibly better in that part for 15 or 16 succeeding years than the remaining part, although the land was all the same quality, and the part not boned was manured with farm yard dung. Another says, "about three acres of light sandy land was boned with 150 bushels per acre by mistake, and although it was as far back as 1814, the land has never forgotten it, but is nearly half as good again, as the other part farmed precisely in the same way, with the exception of one dressing of bones." A convincing proof of the utility of this kind of tillage may be deduced from the fact, that there is rapidly increasing demand for bones. "In no one return," observe the committee, "in answer to the query in our circular, do you continue to use them? has the answer been in the negative; the impression which is prevalent in our neighborhood that he is not accounted a good farmer who does not use them, is echoed from the Wolds of Lincolnshire."

The most valuable part of the report, consists of the practical details derived from the experiments of the farmers, who have used bones, regarding the time and manner of their application, upon which point some variety of opinion prevails, as might be expected amongst the committee's correspondents.

Like other kinds of manure, the proper effect of bones on the soil, depends upon their undergoing a certain degree of fermentation. This principle was discovered by some experiments of Mr. Horncastle, of Hodsack, who found that boiled and stewed bones were preferable to raw. The committee observe, the principles thus developed, naturally lead us to another of great importance, which has been elicited by the practice of intelligent farmers, and like all

principles developed by practice, the most certain and satisfactory from its having proceeded from no theory previously formed; it is the accurate observation of facts which leads to every practical improvement, and a classification of the facts proves the only and safe principle which pervades them.

The principle is the superiority of a compost of bones and manure, or other substances, over bones used singly, the effects of such a compost are stated, by some of our correspondents, who present them as their own individual conclusions, and a course into which they have been individually led by experience, without having had as far as appears, any communication with each other. Such a coincidence is too regular and marked, to allow us to atribute it to any accidental circumstance, and the force of the concurrent testimony is so great as to leave no reasonable place for doubt.

The results of the inquiries proposed by the committee, are shown in the following summary of their deductions from the details collected.

It appears that on dry lands, limestone, chalk, light loams, and peat, bones are a very highly valuable manure, they may be laid on grass with good effect, and on arable lands they may be laid on fallow for turnips, or used for any of the subsequent crops.

That the best way of using them when broad cast, is previously to make them up with earth, dung, or other manure, and let them lie to ferment.

That if used alone, they may be drilled with the seed, or thrown broadcast.

That bones which have undergone the process of fermentation are decidedly superior to those which have not done so. That the quantity should be about 25 bushels of dust, or 50 bushels of large, increasing the quantity if the land be impovished, that upon clays and heavy loams it does not yet appear that bones will answer.

ART. CXLIX.—*Present State of Agriculture in Poland.*

This country being the subject of so much feeling, an account of its agriculture will undoubtedly, be acceptable to the readers of the N. Y. Farmer. Let Poland obtain independence, and it will once more become distinguished for the abundance of its products. We abridge the following information from Loudon's Encyclopædia of Agriculture.

Poland was formerly called the granary of Europe; but this was when its boundaries extended from the Baltic to the Black Sea; and when the Ukraine and Lithuania were included. At present its limits are so circumscribed, and its arable surface so indifferently cultivated, or naturally so infertile, that the kingdom of Poland, strictly speaking, furnishes little more corn than supplies its own population. The immense supplies of wheat sent to Dantzic are chiefly from the detached provinces of Gallicia, united to Austria, and from Volhynia and Podolia, now belonging to Russia.

The landed estates of Poland are almost every where large, and either belong to the crown, to the nobles, or to religious corporations. They are farmed by the proprietors, by means of stewards; or let out small portions on the meyer or leibeigener tenure. There are scarcely any free farmers or cottagers.—Buonaparte passed an edict, while Poland was under his protection as a duchy, to annul the leibeigener tenure; but it is said the peasants were too much afraid to trust to their own industry to take advantage of it; and it was never carried into effect. The nobles have generally houses on their estates, which they occupy, at least, part of the year; at other periods it is taken care of by the steward, who is always admitted at the table of his lord, being himself what is called of noble descent. The estates of religious houses are of great extent: they are sometimes let to nobles or others on a corn rent, who generally sublet them; and in a few cases they are farmed by the corporation. The postmasters on the different main roads invariably rent a considerable portion of land for the support of their horses.

The houses and offices of these noble postmasters afford the only distant resemblance to a British farmyard, that is to be met with in Poland. The farmhouse and farmery of the peasant postmaster are both included in an immense shed or barn, with a small apartment at one end for the master's dwelling, the remaining space divided for live stock and implements of every description and for the cattle, carriages, and lodging place of travellers who may stop during night. Most of these places are sufficiently wretched as inns, but in the present state of things they answer very well for the other purposes to which they are applied & are superior to the hovels of the farmers who are not postmasters, and who are clustered together in villages, or in the outskirts of towns.

The climate of Poland, though severe, is much less precarious than that of the south of Germany or of France. A winter of from five to seven months, during the greater part of which time the soil is covered with snow, is succeeded by a rapid spring and warm summer; and these are followed by a short cold wet autumn. [*To be continued.*]

ART. CI.—*Weevil in Wheat.*

MR. FLEET, In the May No. of the New York Farmer & Horticultural Repository Article 101, I have observed in the remarks of T. S. in answer to N. W. T. that the weevil is there called the "weevil fly", and that one of the modes which presents itself for preserving wheat from its greatest enemy, is to place it in a situation to exclude the fly *that is on the wing.* Now although I agree with T. S. in his remarks respecting the production of the insects, and of their coming to maturity in the kernel of the grain, yet I have never known the weevil which we have on the east end of Long Island, "to fly about the Indian corn in the crib," or to be seen on the wing at any time. Neither have I known them to get from a barn where they were in abundance, to a stack of grain within two or three rods, unless it was by crawling on a fence or something of the kind; and I have never known any in a stack of grain, insulated from a barn or crib, unless they were carried thence in the old straw that was used for litter.

For the sake of inviting discussion and inquiry on so important a subject, you are at liberty to make use of the above, or any part of it, in any manner you think proper. Very respectfully, J. T.

Oyster Ponds, July 2, 1831.

[The following article is copied from the Naturalist, a monthly periodical at Boston, deserving of encouragement from every lover of nature.]

Art. CLI.—*The Great-Flowering Cereus.*

Natural Order—*Opuntiaceae*, resembling the opuntia in flowers and medicinal properties; refrigerant, emollient, tonic. Class—*Icosandria*, having twenty stamens standing on the calyx. Order—*Monogynia*, having but one pistil. Genus—*Cereus*, comprising cereuses. Species—*Grandiflorus*, having large flowers. Calyx superior, many-cleft, imbricate: petals numerous, in many series, the inner ones larger: stigma many-cleft: berry 1-celled, many-seeded, umbilicate.

'Bright as the blush of rising morn she warns
The dull, cold eye of midnight with her charms;
There to the skies she lifts her penciled brows,
Ope's her fair lips, and breathes her virgin vows;
Eyes the white zenith; counts the suns that roll
Their distant fires, and blaze around the pole;
Or mark where Jove directs his glittering car
O'er heaven's blue vault—herself a brighter star!
Sweet maid of night! to Cynthia's sober beams
Glows thy warm cheek, thy polished bosom gleams,
In crowds around thee gaze th' admiring swains,
And guard in silence the enchanted plains;
Drop the still tear, or breathe th' impassioned sigh,
And drink inebriate rapture from thine eye.'

This stately flower is found in different parts of South America, and in some of the West India islands. It expands a most beautiful and magnificient corolla of nearly a foot in diameter. When arrived to a sufficient strength it will produce many large, beautiful, sweet-scented flowers; sometimes six, eight or ten open at the same time on one plant, displaying a most magnificient appearance by candle light. The inside of the calix is a splendid yellow, or bright sulphur color; the petals of the purest white; but viewing it in front, so as to look into its deep bell, whence issues its long trembling stamens, baffles all description; for in one shade, it is of an aurora color; viewing in another, it resembles the blaze of burning nitre; and as the eye plays over it, we think we see, at times, a bright reddish purple.

This plant takes its generic name from *cereus*, pliant, from the flexibility of the shoots of some of the species.

We may remark generally, that the most splendid flowers are of shortest duration: thus this grand flower expands its beautiful corolla, and diffuses a most fragrant odor, for a few hours in the night, then closes to expand no more. It commonly opens about seven or eight o'clock in the evening, usually in July in its native place, but later in England and in this country; by two in the morning it begins to wilt, and hangs soon after to fade, droop and wither; and before sunrise it hangs down in a state of irrecoverable collapse and decay; and the next day this short-lived belle resembles a soaked half-grown ear of Indian corn.

Art. CLII.—*Lime and Green Crops as Manure.*

We were much gratified by a visit, on Tuesday last, to Woodside farm, the residence of S. Canby, Jr. situated in this neighbourhood, between three and four miles from this borough. We spent a couple of hours in walking over the farm and looking at the arrangements. The farm is between 180 and 190 acres, and, under its present course of improvement, promises, in a short time, to be one of the most productive, as it is one of the most beautiful, in our state. The extensive farm yard struck us as a model of utility and convenience—the capacity and general arrangement of the out-buildings, including the barn and sheds—the mode of dividing the horses and cattle into different yards, each of which is supplied with water by a horse power, which is also applied to getting out the grain, wheat corn, &c.—altogether constitutes the most complete farm yard that we are acquainted with, and well deserving the inspection of farmers in this age of agricultural improvement. Mr. Canby has directed his attention particularly to the rearing of a dairy stock, for which the character of his farm, which is finely watered, and has abundant meadow land, furnishes peculiar facilities. His stock is already considerable, and among them we saw some remarkable fine animals of the Teeswater, or short horn Durham breed. Albeit, being unskilled in flocks and herds, we could not fail to notice and admire the features which distinguish this foreign species of the milky tribe from our native stocks—the small head and neck, short horns, fine outlines, and magnificent udders, from whose bountiful source so many of our comforts and luxuries flow. In the course of our walk, Mr. Canby pointed out three fields, one of which was then covered with a luxuriant crop of clover hay, that had just been cut. He stated that these fields had, in the course of two years, been brought to their present flourishing condition, by the aid of lime and green manure alone. As it occurred to us that a knowledge of the method by which this effect was produced, would be useful to our farmers in those parts of the country where stable manure is not to be obtained, we here record the process adopted by him. In the autumn of 1828 he selected these three fields, which were worn out and exhausted by previous cropping. After ploughing, thirty bushels of lime were used to the acre, and the fields were sown with rye. Late in the succeeding May, the rye was ploughed in, thirty bushels of lime per acre again spread on the land, and two bushels of corn sown broad cast. In the early part of September the corn was rolled down with a heavy roller and ploughed under; harrowed immediately after ploughing, sown with wheat early in October, and harrowed in. The crop of wheat, after this preparation, was nearly equal to that produced in the fields prepared with stable manure. One of these fields brought, by this process, from the lowest ebb of sterility, in the brief period of little more than two years, was, within our own view, as we have observed, covered with a heavy crop of grass just cut, and the other two furnished abundant pasture for all the stock of the farm! We would invite our agricultural friends in the middle and lower parts of the state, when stable manure is not easily obtained, and green manure is accessible to all, to try this experiment. Let a farmer set apart, for this purpose, five or ten acres—if stone lime cannot be had, shell lime probably can; use double the quantity of this. The expense, we are assured, is trifling, compared with the price of stable manure, even where it can be had, and that expense will be paid by one or two crops.

The above is from the Delaware Journal. Mr. S. B. Collins, of this city, affords shell lime at six cents per bushel. Let farmers try the experiment.—*Ed. N. Y. Farmer.*

ART. CLIII.—*Language of Flowers.*

Besides the scientific relations which are to be observed in plants, flowers may also be regarded as emblematical of the affections of the heart—and intellectual qualities. In all ages of the world, history and fable have attached to flowers particular associations; consecrating them to melancholy remembrances, to glory, friendship or love. In oriental countries, a *selam*, or bouquet of flowers, is often made the interesting medium of communicating sentiments, to which words are often inadequate.

The authorities for the emblems here adopted are, "Flora's Dictionary," "Garland of Flora," "Lee's *Vegeteux Curieux*," and "*Embleme Des Fleurs.*"—In a few cases alterations have been made, in order to introduce sentiments of a more refined and elevated character, than such as relate to mere personal attractions.—*Mrs. Lincoln.*

Acacia. Friendship.

Acanthus. Indissoluble ties.

Aconitum. (Monks-hood.) Deceit. Poisonous words.

Adonis autumnalis. Sorrowful remembrances.

Agrostemma. (Cockle.) Charms please the eye, but merit wins the soul.

Althea. I would not act contrary to reason.

Aloe. Religious superstition. Think not the Almighty wills one idle pang, one needless tear.

Amaranthus. Immortality. Unchangeable.

A. Melancholicus. Love lies bleeding.

Amaryllis. Splendid beauty. Coquetry.

Anemone. Anticipation. Frailty.

Arum. Deceit. Ferocity. Treachery.

Apocynum. Falsehood.

Arbor-vitæ. (Thuja occidentalis.) Friendship unchanging.

Aster. Beauty in retirement.

Auricula. Elegance. Pride.

Asclepias. (Milk-weed.) Cure for the heart-ache. The miserable have no medicine but hope.

Bachelor's button. Hope, even in misery.

Balm. Sweets of social intercourse.

Broom. Humility.

Broom-corn. Industry.

Balsam (impatiens.) Impatience. Do not approach me.

Bay. (Laurus.) I change but with death.

Box. Constancy.

Calla ethiopica. (Egyptian lilly.) Feminine delicacy.

Camellia japonica. (Japan rose.) Pity is easily changed to love.

Campanula. (Bell-flower.) Gratitude.

Cape jasmine. (Gardenia florida.) My heart is joyful.

Cardinal flower. Lobelia Cardinalis. High station does not secure happiness.

Catch-fly. (Lychnis.) I am a willing prisoner.

Cedar. (Juniperus.) You are entitled to my love.

China-Aster, double. (Aster Chinensis.) Your sentiments meet with a return.

China-Aster, single. You have no cause for discouragement.

Chrysanthemum red. Love.

Chrysanthemum white. Truth needs no protestation.

Chrysanthemum yellow. A heart left to desolation.

Clematis, (Virgin's Bower.) Mental excellence.

Cock's comb. (Aramanteus.) Foppery. Affectation.

Columbine purple. (Aquilegia Canadensis.) I cannot give thee up.

Columbine red. Hope and fear alternately prevail.

Convolvulus. Uncertainty.

Cornus. Indifference. A changed heart.

Cowslip. (Primula.) Native grace.

Crocus. Cheerfulness.

Crown imperial. (Fritillaria imperialis.) Majesty. Power.

Cypress. Disappointed hopes. Despair.

Chamomile. Blooms in sorrow. Energy to act in adversity.

Carnation. (Dianthus.) Disdain. Pride

Citron, Beautiful but ill humoured.

Dahlia. Forever thine.

Daisy. (Bellis perennis.) Unconscious beauty.

Dandelion. Smiling on all. Coquetry.

Eglantine. (Rosa rubiginosa.) I wound to heal.

Elder. (Sambucus.) Compassion yielding to love.

Everlasting. (Gnaphalium.) Never ceasing remembrance.

Fox glove. (Digitalis.) I am not ambitious for myself, but for you.

Fuchsia. (Ladies' ear-drop.) It were all one,
That I should love a bright particular star,
And think to wed it.

Geranium fish. Thou art changed.

Geranium oak. Give me one look to cheer my absence.

Geranium rose. Many are lovely, but you exceed all.

[To be continued.]

ART. CXLIV.—*Miscellaneous, Original and Selected.*

Animal Food and Soup in France.—From the statistical researches made in 1790, by the celebrted Lagrange, and brought up to the present period by M. Moreau de Jonnès, in an interesting memoir recently read to the Academy of Sciences, it is shown that France does not produce one half the amount of the flesh of animals necessary to the proper nourishment of the inhabitants. One of the most important services therefore, which could be rendered to the country, was to discover a nutritive substance which was at once abundant, easily to be procured, and of low price.

Many scientific individuals conceived that this substance was to be found in the extracts from bones.

Papin invented his digester, in which after a long ebullition, the desired product was obtained—but this process was too tedious and expensive; and it was reserved for the celebrated chemist Darcet, to invent a more simple means: and by the modifications which he has since introduced into the process, a gelatin is now obtained from bones, which presents all the desired qualities. This new aliment has been the subject of a great number of experiments, all of which have confirmed the importance of M. Darcet's dicovery. The Faculty of Medicine, the Philanthropic Society, and the most celebrated chemists regard the gelatin (jelly) obtained by it, as the most healthy and nutritive aliment we possess. It is at the same time pro-

cured in such abundance, that a *kilogramme* (about 2¼ lbs.) of bones, contains sufficient to prepare 15 pints of soup; while a kilogramme of meat furnishes only two pints. In the department of the Seine alone, if the whole of the bones of the meat consumed in one day, were to be converted into gelatin, they would furnish 800,000 rations of soup.—*French Pub.*

Improved Farms.—In 1825, the Massachusetts Agricultural Society awarded a premium to E. H. Derby Esq. of Salem, for the greatest quantity of vegetables raised for consumption on his farm of about 14 acres of land.

The following is his statement.

Cabbages at 56 lbs. per bushel, 1,503; Pumpkins, 7 ox-cart loads, 294; Potatoes, 415; Mangel Wurtzel, 2,036 3-4; Sugar Beets, 254; Russian Radish, 90; English Turnips, 1,026—total 5,638 3-4 bushels.

Mr. John Warren, of Westborough, Worcester co. Mass. on a farm of 46 acres, produces annually, English Hay, 50 tons.; Pork and Beef, 6,000 lbs.; Butter, 1,100 lbs.; Cheese, 2,500 lbs.; Corn and Wheat, 300 bushels.

This latter instance may not be regarded as an extraordinary affair. Many thousand farmers in New England rear large and respectable families, pay all their debts and taxes promptly, and live independently, well clothed, comfortably housed, richly provided for, and lay up money on farms of 50 or 100 acres.

Produce of the Orange Farm near Baltimore, Md.

Milk, $4,822 20; Butter, $1,779 36; Beef, $1,201 89; Veal, $184 70; Pigs, $72 50; Vegetables, $453 98; Hay, $1,143 06; total $9,659 63.

The Orange Farm contains 400 acres, of which 30 are in garden, and 370 in a dairy farm. Of the 370 acres, about 70 are in woodland, and about 300 under cultivation. The products enumerated above, are exclusive of the garden vegetables. The cows are in cumber about 100, sometimes more and sometimes nss.

The Flower Market of Paris occupies an open area of about two acres, and the stands of the different florists are held under three parallel rows of the common and three-thorned acacia. These stands are almost always kept by the wives or daughters of the growers, and not, as in London, by a distinct class intermediate between the grower and the consumer. Every thing connected with the stands is portable; the pots and plant are, for the most part, set on the ground; and only such as sell seeds and cut flowers have small benches on which they are placed. In summer the attendant lady sits in a chair, close behind which is a pole or rod terminating in a hole, for the insertion of an umbrella, which serves also as a parasol. In winter she has a mat around the chair, and straw upon a board, on which to place her feet. Some have small portable houses, with a brazier of charcoal embers. We visited the market on September 13th and December 20th.—*Loudon.*

Noise of Cannon injurious to Goslings. A respectable gentleman in a neighboring town informs us, that during the cannonading of the battle of Bunker Hill, he was feeding a brood of goslings about six miles from Charlestown, and that all the goslings turned on their backs and died. The gentleman was then a boy, and was much puzzled by the mysterious occurrence. —*Salem Gazette.*

Flies upon Pictures.—The following simple way of preventing flies from sitting on pictures, or any other furniture, is well experienced, and will if generally used, prevent trouble and damage; let a large bunch of leaks soak four or five days in a pailful of water, and wash the picture, or any other peice of furniture with it—the flies will never come near any thing so washed.

Chrysomela Vitivora.—Two of my friends, living at the respective distances of 3 and 4 miles from this place, have also found Chrysomela vitivora on their vines. Since my former note was written, I recollected that our vine leaves were infested last year, by a little catterpillar which we strongly suspect was the *larva* of this insect; and now, wherever this insect has appeared, the same kind of catterpillar has been found on the leaves. If we are right in this conjecture, the specific name *vitivora*, will therefore be doubly appropriate.

We have hoped that after this *Chrysomela* had laid its eggs, the old stock would die off; but some stragglers, that had escaped our fingers, are still lurking around. D. T.

Sixth month, 17, 1831.

Bay Winged Bunting.—I had some misgivings when I copied from Wilson, (page 129.) that the Bay Winged Bunting is a *shy bird*. Those whom he saw, however, were probably a persecuted few, who had to fly when they could, from mischievous urchins, pelting them with stones; or from others,—larger, not wiser,—who are permitted to carry guns. A bird that will sing or feed within two rods of persons, in full sight, ought not to be called *shy*; and such is the Bunting,—often running along the alleys in the garden, and singing on the fences, and on the summer house.

I can now positively say, that this bird is fond of dusting itself in the road; and I recollect no other undomesticated bird that takes this kind of exercise.

Sixth month, 17, 1831. D. T.

New York Cattle Market, July 11.—The prices are considerably lower than they were last month, but not more so than they generally are this season of the year. At market, 600 head. Average $6, highest $6,50. About 500 sheep and lambs, the former averaging $3,50, and the latter $2,50.

Hay—Wednesday, July 13.—New, 75 cts., old, indifferent, 63 cts.; good 87 cents.

New York Produce Market, Wednesday, July 13. —Cotton transactions moderate—N. Orleans 10 to 12 1-2; upland, 8 to 10. Wheat flour—superfine New York, $5, Troy, $5,12 1-2; Ohio, $4,37 1-2. Rye flour, $3,50 to $3,62 1-2. Indian meal, $3,50, to $3,63. Wheat, 80 to 100; Genesee 106 to 110; Rye, Northern, 72 to 74; Corn, yellow, 68 to 70; L. Island and N. Jersey, 75 to 77; Oats, 32 to 38; Wool, Merino, in fleece, 45 to 75, do. pulled, 45 to 65; common, 25 to 35; lambs, 1st qual. 50 to 62.

Export of flour, since the 1st of Jan. has been 832,897 barrels. The prices for provisions remain unaltered.

Trees around Public Buildings.—Within a short period, we have seen several notices of the ravages of fire being arrested by trees around public buildings.—Several instances have occured particularly on burning of the capitol at Raleigh, the surrounding grove saved the adjoining buildings.

[Our readers will undoubtly find the following observations from the N. E. Farmer, on the manufacture of cheese to be to the purpose. If however any better can be given, we should be pleased to have them.]

ART. CXLV.—*Directions for the Manufacture of Cheese.*

1. What is the effect on milk, in hot weather, if it is much agitated and heated in the udder, by the cow's being driven a long distance, or running about?

It greatly injures the milk; it is very difficult to make into cheese, and instead of one hour (the time very commonly given by dairy-women in bringing the cheese) it will frequently not come in 3, 4, or 5 hours, and then in an imperfect state; and when the cheese is released from the press it will heave or puff up. 2. Which is the best method to keep milk sweet over night in warm weather? Set the milk in small brass, or tin vessels, and put one table spoonful of fine salt to each gallon, and pour in some cold water according to the heat of the weather; let the milk stand where there is a free circulation of air. In the morning take off the cream and mix it *thoroughly* with the *warm* morning's milk. [Zinc pans are probably better than tin or brass.] 3. Which is the best method to preserve rennet skins? Let the calf suck about 11 hours before it is killed. Take out the maw-skin and *let it lie three hours* in a cool place, then empty the maw, let *no water touch* it, and rub it well with salt on each side, and afterwards cover it with salt, and put it in a bowl; turn and rub it every day for about three days, then open it to dry, being stretched out on a stick, that it may dry regularly.

It is of great importance that the maw skin be well prepared; good cheese cannot be made with bad rennet. It is reckoned best to be one year old before used; it will fetch more cheese, and it is said the cheese will be milder. To prepare the rennet make 2 quarts of brine that will swim an egg; when the heat is gone off to about blood warm, put in one maw-skin cut in pieces, let it steep two days, 48 hours, then strain and bottle it. 4. What quantity of new cheese will one rennet skin produce? The average about 250 lbs., some produce 600 lbs. 5. How many quarts of milk (milk measure) will produce curd for a cheese which will weigh 15 lbs. from the press? Forty-five to 60 quarts, according to the richness of the milk.—6. What will a cheese which weighs 15 lbs. from the press shrink the first five months after it is made? Near three pounds.—A cheese which weighs 24 lbs. green, will shrink 4 lbs. in 5 months.

7. What degree of the thermometer should be the heat of the milk when the rennet is put in? From 80 to 90, according to the heat of the weather, and the quantity of milk. The smaller the quantity of milk, and the cooler the weather, the hotter should be the milk. 8. What is the effect if the milk is too hot when the rennet is put to it? The cheese will partake of the elastic or springing quality of a sponge. It leaves it in a very tough state. It inclines the cheese to heave and be strong. The whey will look green and then white; it spoils the cheese. 9. What is the effect if the milk is too cold when the rennet is put to it? It will hardly come at all, and it is not easy to separate the whey, and is in danger in warm weather of souring. The cheese is apt to cut chisselly and break and fly before the knife. 10. How long time should be allowed after the rennet is put to the milk to cause it to turn to curd fit for the cheese knife? One hour in warm sultry southwesterly weather, and not less than one and a half hour in clear northwest weather.—[Cheese will come in warm weather quicker than in cool with the same quantity of rennet, as it does not cool so quick. When the whey looks blue, the curd is fully formed and the whey may be *carefully* separated.] 11. What is the effect if the curd is stirred, or broken too soon? The rennet will not take full effect. It will cause slip curd, which will never make good cheese. The cheese will be unsettled and ill flavored. The whey will be rich, and the cheese poor. 12. What is the effect if too much rennet is put to the milk?—The cheese will be rank or very strong, and is liable to heave and spread. 13. What is the effect if too little rennet is put to the milk? It works too slow, and is liable to become sour in warm weather.

14. What kind of salt is best for cheese? The *very best* of Blown Liverpool salt. Some prefer the best of Rock or Turks Island salt, washed and ground. 15. What quantity of salt should be put to the curd which will make a cheese weighing 15 lbs. from the press? About six ounces. If a cheese of 15 lbs. is salted when turned in the press, and afterwards put in a brine 15 hours, 1 oz. of salt to the curd will be sufficient. 16. What is the effect if too much salt is put to the curd? The cheese will be hard, dry, poor, and warty. 17. What is the effect if too little salt is put to the curd, or it is not well cured in brine? The cheese will taste strong, be liable to heave, spread and will not cure well. 18. What is the effect if cheese is not sufficiently pressed? The cheese will crack, leak, mould and rot.

[Press the cheese gently at first, and advance gradually to the utmost power of the press. If cheese is not scalded right, and well mixed, we cannot by pressing make it firm. If cheese is pressed too much it is apt to be hard and poor.]

It is recommended to have the milk in the tub measured with a guaging rod, the salt weighed, the rennet measured, and the temperature of the milk when the rennet is added, determined by a thermometer; if there was less guessing about making cheese, there would be less poor cheese made. Skimmed cheeses do not require so much scalding as new milk. If curd for cheese is not well scalded the cheeses will look warty, spread and leak; scald the curd more than is generally practised, and then *cool it in cold water*, the whey will work out more readily. If cheese is put into the press warm, it is apt to puff up, and be strong.

Sour curd will not make good cheese, and sour milk should be given to the swine, cheese made of it would be hard, crack, leak, and be wrinkle coated. Scalded milk makes rich cheese. The practice of coloring cheese and butter, we think, should be discouraged; who would thank a milk man to color his milk?

As to cheese hoops for a middling size cheese, let the height be about two thirds of the diameter; for small cheese, let the height be about half the diameter. Be careful that the room, where rich new cheese is kept in hot weather, be not too warm. The whey may be let off when the curd is sufficiently formed by a plug at the bottom of the tub; placing something over the hole to keep the curd from stopping it.

[A great portion of the cheese made in the U. States is far inferior to that made in England, and other European countries. The cause undoubtedly, rest with the manufacture, more than on the soil or productions.]

ART. CXLVI.—*Extent and Productions of Illinois.*

This important state has the Mississippi river on the west, and south west; the Ohio and Wabash on the south and southeast; Indiana on the east; Lake Michigan on the northeast; and Huron district on the north; and extending from the junction of the Ohio and Mississippi in N. lat. 37 deg. to the northern boundary, in north lat. 42 deg. 30 min.; it is 382 miles long, with a mean width of 154 miles, and contains 57,000 square miles. Illinois is the fourth state of the union in point of extent, and in general fertility it is perhaps the first. The surface is rolling on the south and west, and level on the north and east. Probably no part of this state rises more than 1,000 feet above the level of the ocean. The climate is fine. In the northern part the winters are considerably colder than in the southern part.

The productions, both natural and cultivated, are similar to those of Kentucky, Ohio, and Indiana. Corn, wheat, rye, potatoes, both Irish and sweet, &c. grow luxuriantly. Vast prairies extend through the state from north to south. The County of Joe Daviess in the north western corner of this state, is distinguished for it its lead mines, where vast quantities of lead are manufactured, and exported from Galena, a flourishing town on the Mississippi.

"The American Bottom," as it is called, along the Mississippi river, above and below Kaskaskia, is among the richest land in the world.

Illinois has admirable facilities for navigation. On the west is the Mississippi; on the north west, Rock river, a long and boatable stream; on the north east is lake Michigan for 50 miles; on the east the Wabash, and the Ohio on the south; whilst in the centre is the Illinois and other navigable streams. This state has at least 4,000 miles of boatable waters within its limits.

The increase of Illinois has been very rapid within the last few years; it is even supposed that the emigration has been equal to 12,000 annually. By the census of 1820, there was a population of 55,211. In 1830 it was 157,575!

ART. CXLVII.—*Present state of Agriculture in Poland.* [Continued from page 165.]

The surface of Poland is remarkably even, and *the soil* almost every where sandy to a great depth.—In many places this sand is calcareous, and produces abundance of white clover naturally; in others it is sterile, and only produces heath or stunted shrubs.

The arable culture of Poland is abundantly simple: the course of crops is in most places, 1st, wheat, barley, or rye; 2d, oats; 3d, fallow, or several years rest, to commence with fallow. In a very few places clover is sown, and also beans or peas, but only in small quantities. The digitaria sanguinalis is sown as a plant of luxury in a few places, and the seeds used as rice: the buckwheat is also sown, and the seeds ground and used as meal. Almost every farmer sows linseed or hemp, to the extent required for home use, and some for sale. Rye is the bread corn of the country. Potatoes are now becoming general; and succeed well in every part of the country. The mangold, or white beet, was cultivated in many places in 1811 and 1812, by order of Bonaparte, in order that the natives might grow their own sugar; but that is now left off, and the peasants have not even learned its value as a garden plant, producing chard and spinnage. Turnips or cabbages are rarely seen even in gardens, few of the cottagers indeed, have any garden; those who have, cultivate chiefly potatoes, and kohl rübe. Many species of mushrooms grow wild in the woods and wastes, and most of these are carefully gathered and cooked in a variety of ways as in Russia. The wastes or common pastures, are left entirely to nature.

The implements and operations are extremely rude. We have seen lands ploughed (after their manner) by one cow, tied by the horns to a sharp pole; in other instances a pair of oxen drag a wretched implement, formed by the peasant, who is in all cases his own plough and wheelwright, as well as house carpenter and builder. Their best, or usual plough has no mould-board.

The body of their best market carts, in which even the lesser nobles visit each other, are of wicker work, and the axle and wheels are made without any iron.

The live stock consist chiefly of horses: there are few oxen; not many cows, and very few sheep.—Poultry are abundant, and swine; but the latter of the yellow long legged breed. The horses are very hardy animals, and of better shapes than might be expected from their treatment. Warsaw and Cracow are supplied with beef and veal, chiefly from the Ukraine. Mutton is little used.

The extensive forests of Poland are little attended to, excepting on the banks of the principal rivers, and where oak abounds, from which bark and wheel spokes may be procured.

The efforts to introduce a better culture into Poland since the peace, have been general, and conducted on rational principles. British implements have been imported in considerable numbers. Improved breeds of cattle and sheep have been procured from Prussia and Saxony; scientific managers are obtained from the German agricultural schools, and what will contribute essentially to improvement, encouragement is given to foreigners to settle by letting or selling the crown lands at moderate rates, and not only free from all feudal services for ever, but for a certain period exempted from government taxes.

In short, the most judicious measures are taken by the government of Poland, for the improvement of the country; and they have been followed up with considerable vigor by the proprietors. These proprietors are now a different and very superior class of men, to what they were fifty or sixty years ago.—They have mostly been officers in the French army, and with it traversed the greater part of Europe; better educated than many of the French, and more engaging in their manners than the Germans, they may be considered among the first gentlemen of the Continent. The Polish peasantry are naturally a much more lively and ingenious race than those of Russia, with whom they are generally compared; and they will gradually participate in the improvement of their masters.

ART. CXLVIII.—*Language of Flowers.*—[Continued from page 167.]

Hawthorn. (Cratægus.) Hope! I thee invoke.
Heart's ease. (Viola tricolor.) Forget me not.

Honeysuckle, (Lonicera.) I strive with grief. Fidelity.

Hibiscus. Beauty is vain.

Holly. (Ilex.) Think upon your vows.

Holiyhock. (Althea rosea.) Ambition.

Hyacinth. Love is full of jealousy.

Hydrangea. A boaster. Superior merit when assumed, is lost.

Houstonia cerulia. Meek and quiet happiness.

Hypericum. (St. John's wort.) Animosity.

Jasmine. You bear a gentle mind. Amiability.

Jonquil. (Narcissus.) Affection returned.

Ipomœa Busy body. Busy bodies are a dangerous sort of people.

Iris. I have a message for you.

Ivy. (Vitis hedera.) Female affection. I have found one true heart.

Laburnum. (Cytisus laburnum.) Pensive beauty.

Lady's Slipper. (Cypripedium.) Capricious beauty.

Larkspur. (Delphinium.) Inconstancy. Inconstant as the changing wind.

Laurel. (Kalmia.) Oh what a godly outside falsehood hath.

Lavender. Words though sweet may be deceptive.

Lemon. (Citrus Lemonium.) Discretion. Prudence.

Lilac. (Syringa.) First love.

Lily, white. (Lilium candidum.) Purity. With looks too pure for earth.

Lily, yellow. False. Light as air.

Lily of the valley. (Convallaria.) Delicacy. The heart withereth in secret.

Locust—the green leaves. Affection beyond the grave. Sorrow ends not, when it seemeth done.

Lupine. Indignation.

Magnolia. Perseverance.

Marigold. Cruelty. Contempt.

Mirabilis. (Four o'clock) Timidity.

Mignonette. (Reseda odorata) Moral and intellectual beauty.

Mimosa. (Sensitive plant.) My heart is like a broken lute.

Mock Orange, or Syringa. (Philadelphus) Counterfeit. I cannot believe one who has once deceived me.

Myrtle. (Mirtus) Love.

Myrtle, withered. Love betrayed.

Narcissus. Egotism. The selfish heart deserves the pain it feels.

Nettle. (Urtica.) Scandal.

Nightshade. Suspicion. Artifice. Scepticism.

Nasturtion. (Tropæolum.) Honor to the brave. Wit.

Oleander. Beware. Shun the coming evil. In vain is the net spread in the sight of any bird.

Olive. Peace. After a storm comes a calm.

Orange flowers. Bridal festivity.

Parsley. (Apium.) Useful knowledge.

Passion flower. (Passiflora.) Devotion.

Peach blossom. Here I fix my choice.

Periwinkle. (Vinca.) Recollections of the past.

Phlox. Our souls are united.

Pine. (Pinus resinosa.) Time and philosophy.

Pine. (Spruce.) Farewell! for I must leave thee.

Pink, single, white. (Dianthus.) Ingenuousness. Stranger to art.

Pink, China. (Dianthus Chinensis.) Aversion Though repulsed, not in despair.

Pink, single red.

A token of all the heart can keep:
Of holy love in its fountain deep.

Pink variegated. Refusal. You have my friendship; ask not for more.

Pæony. (Pæonia.) Anger. Ostentation.

Polyanthus. Thou knowest my confidence in thee.

Pomegranate flower. (Punica.) Mature and beautiful.

Poppy, red. Consolation. Let the darkness of the past be forgotten, in the light of hope.

Poppy, white.

Doom'd to heal—or doom'd to kill,
Fraught with good or fraught with ill.

Poppy variegated. Beauty without loveliness.

Primrose. (Primula.) Be mine the delight of bringing modest worth from obscurity.

Primrose, evening, (Œnothera.) Inconstancy. Be not beguiled with smooth words. Man's love is like the changing moon.

Ranunculus. Flowers are beautiful, but do not, like mental beauty, delight the heart.

Rosemary. Keep this for my sake. I'll remember thee.

Rue. (Ruta.) Disdain. This trifling may be mirth to you, but 'tis death to me.

Rose bud. Confession. Thou hast stolen my affections.

Rose, Burgundy. Modesty and innocence united to beauty.

Rose, damask. Sweeter than the op'ning rose.

Rose, red. The blush of modesty is lovely.

Rose, Moss. Superior merit.

Rose, white. Let me be,
In maiden meditation, fancy free.

Rose, white, withered. Emblem of my heart. Withered like your love.

Rose, wild. Simplicity. Let not your unsophisticated heart be corrupted by intercourse with the world.

Rose cinnamon. Without pretension. Such as I am, receive me. Would I were of more worth for your sake.

Sage. (Salvia.) Domestic virtues. Woman's province is at home.

Scarlet Lychnis. (Lychnis chalcedonica.) I see my danger without power to shun.

Snapdragon. (Antirrhinum) I have been flattered with false hopes.

Snow ball. (Viburnum.) Virtues cluster around thee. A Union.

Snow drop. (Galanthus.) Though chilled with adversity, I will be true to thee. I am not a summer friend.

Sorrel. (Rumex.) Wit ill timed. He makes a foe who makes a jest.

Speedwell. (Veronica.) True love's a holy light.
And when 'tis kindled ne'er can die.

Spider wort. (Tradescantica.) The pledge of friendship, 'tis all my heart can give. Would'st thou then counsel me to fall in love?

Star of Bethlehem. (Ornithorgalum.) Reconciliation. Light is brighter when it shineth in darkness.

Solidago. (Golden rod.) Encouragement.

Strawberry. (Fragaria.) A pledge of future happiness.

Sumach. (Rhus.) Splendor. Wealth cannot purchase love. Have you never seen splendid misery.

Sun-flower. You are too aspiring.

Sweet William. (Dianthus barbatus.) Finesse. One may smile and be a villain. I cannot smile when discontent sits heavy at my heart.

Sweet pea. Departure. Must you go?

Stock gilly flower. You are too lavish of your smiles.

Thistle. (Carduus.) Misanthropy. O that the desert were my dwelling place.

Thorn apple. (Stramonium.) Alas, that falsehood should appear in such a lovely form.

Thyme. Less lovely than some, but more estimable.

Tuberose. (Polyanthes tuberosa.) Blessings brighten as they take their flight.

Tulip. Vanity. Thou hast metamorphosed me! This love has been like a blight upon my opening prospects.

Tulip tree. (Liriodendrum.) Rural life favorable to health and virtue.

Verbena. Sensibility.

The heart that is soonest awaked to the flowers,
Is always the first to be touched by the thorns.

Violet blue. Faithfulness. I shall never forget.

Violet white. Modest virtue.

Wall flower. (Cheiranthus.) Misfortune is dear when it proves the truth of friendship.

Weeping willow. (Salix.) Forsaken. Ask not one to join in mirth whose heart is desolate.

Wood Sorrel. (Oxalis.) Tenderness and affection.

Woodbine. (Lonicera.) Fraternal love.

Water lily. The American lotus. (Nymphæ.) An emblem of silence.

Yarrow. (Achillea.) To heal a wounded heart.

ART. CXLVIII.—*Prevailing Diseases of Chickens.*

Chickens reared about old buildings, and especially where they have not access to fresh running water, are subject to a complaint under the common name of the *gapes*. In many cases the ravages of this disease are so extensive, as to prevent the rearing of poultry on many farms; thereby sensibly affecting the market price of that article.

On the dissection of chickens dying of this disease, it will be found, that the windpipe contains numerous small red worms, about half an inch in length, and the size of a small cambric needle; on the first glance they would be likely to be mistaken for blood vessels. These worms may be dislodged, and the disease cured by the introduction of tobacco smoke into the mouth, until the chicken becomes insensible, in which state it will remain for one or two minutes. The operation may be repeated at pleasure, without endangering the life. The first application will usually produce the death or expulsion of the worms, and the removal of the affection—the second always. The smoke from a segar may be blown into the extended mouth of a chicken, or it may be enclosed in a close vessel filled with the smoke of burnt tobacco leaves. It is necessary that the animal become insensible from inhaling the smoke.

Preventive measures, however, are to be preferred. Fowls, while rearing their young, should be kept in clean, well ventilated coops, near to running water, or where they can obtain a supply of that element in a pure state. The practice of allowing them to hatch under houses, and about old buildings, and relying on puddle water, is at all times bad. But if the gapes have ever been prevalent in those situations, no attempt should be made to raise chickens, for the result will surely be lost pains and disappointment.—*Farmers Reporter.*

ART. CXILX.—*Albany Horticultural Society—Sixth Exhibition, June 28, 1831.*

A pint fine strawberries, 1 pint cherries, a quart potatoes, a splendid collection of flowers, consisting of Dianthus caryophillus, Hortensa chinensis and barbatus; Delphinium elatum, and azurcum; Sephara cerulia and alba; Spina ulmaria, Pyrethrum parthenium, Monarda didyma Lonicera caprifolium and stalaca; Rosa, three varieties—from the garden of D. B. Slingerland.

Half peck fine string beans, from the garden of R. M. Meigs.

Two winter squashes of last years growth, very large, and in fine preservation, one of them measured 37 inches in length, and weighed 19 lbs.; the other 29 inches, and 17 pounds—presented by L. Cruttenden, of the Eagle Tavern.

Stated premiums were awarded to D. B. Slingerland.

Discretionary premiums to L. Cruttenden.

The examining Committee deem it proper to add the following extract from the proceedings of the exeibition, held on the 15th inst. which was omitted in their public report of that exhibition.

"Fifty strawberries of uncommon size, and beauty; 47 were weighed by the examining committee, and found to weigh one pound, none of them were less than 4 inches in circumference; they are of the Methven kind, in shape, color, and richness of flavor; they are similar to the best field strawberries,—from the garden of Jesse Buel.

Seventh Exhibition, July 5.

From the garden of Spencer Stafford, 4 large cucumbers, 1 basket fine red currants, 6 baskets fine cherries of different kinds.

From the garden of V. P. Douw, 10 ears of corn, ½ peck kidney potatos.

Presented by Daniel Gilbert, gardener, 6 roots blood beets, 6 roots carrots, ½ peck string beans, 3 varieties of fine hollyhocks.

From the garden of Isaac Denniston, 5 baskets of fine cherries, different kinds; 3 baskets of fine raspberries, different kinds.

From the garden of D. B. Slingerland, 2 heads early York and one head sugar loaf cabbage, 5 roots of Orange and 2 roots Swisschard beets, 1 bunch radishes, second growth; ½ peck of white and black potatos, 1 basket fine red currants, 30 large rich flavored red gooseberries, 2 cucumbers, 7 Pods Chinese peppers, 4 baskets of fine cherries, of different kinds; 2 Caledonian lilies, 3 varieties of splendid double holly hocks, one of them a beautiful snow white; 4 varieties of fine carnation pinks.

From the garden of John Meads, 2 varieties of fine double sweet Williams, 3 varieties of single.

From the garden of Jesse Buel, 16 varieties of

splendid double hollyhocks, one of them a fine white with pink margin and palmated foliage, double white fever few; double red and white green of the meadow; double scarlet lychnis; double orange; yellow, quilled and ranunculus marigolds, and a fine single dahlia.

From the Albany Nursery, 5 varieties of double dahlias, 6 varieties of double poppies, one of them pure white with pink margin; 4 seedling carnations, different colours; 11 varieties of splendid hollyhocks, 5 varieties perennial lark spur; double, white and red queen of the meadow; lady's ear drop; rose willow wort; double scarlet lychnis; Japanese three day lily; double white and blue bell flower; rose potentilla; blue spiked veronica; large red mallow, coriopsis tinctoria, and an elegant dark purple maurandia.

Premiums were awarded to Spencer Stafford on cucumbers: V. P. Douw on corn and potatos: D. B. Slingerland on cabbage: Albany Nursery on flowers.

ART. CL.—*Depth of Sowing.*

At page 147 we made a few remarks on this subject. We continue some extracts from Von Voght.

"The root ever forms itself only next the surface of the earth; and when we place the seed deep, these first push their shoots to the surface, and form other roots in a near point of contract with the air. It is never found that the first roots raise themselves from below upwards; on the contrary, the reverse takes place. In support of this assertion, we may here avail ourselves of the interesting experiment of Mr. Ugazzy, in Andre's Oekonom Neuigkeiten, July, 1817, page 76. Between the 5th and 15th of June, 1817, he examined the best fields, where the seed had been ploughed under, according to the custom of the country, five several kinds of corn, how deep the roots stood in the earth, and what influence the various depths had upon the appearance of the plants. He has expressed his subsequent experience in the following tables:

KINDS OF GRAIN.	Depth of the roots in the soil.					The average produce of Stalks.			
	1 Inch.	1½ In.	2 Inches	2½ Ins.	Total.	1 class.	2 class.	3 class.	4 class.
Winter Rye	742	221	32	5	1000	2 3-5	1 2-7	1	1
Wheat	765	215	17	5	1000	3 4-7	2⅛	1	1
Sum. Wheat	645	304	42	9	1000	4 1-6	2 3-5	1 1-11	1
Barley	631	317	41	11	1000	3 2-5	1 ⅜	1	1
Oats	672	241	64	23	1000	1 ½	1	1	1

"By this it appears that the roots of from two thirds to three fourths of all the corn planted were only one inch under ground, and that these were the very plants which had put forth most ears; one fourth of the plants had their roots an inch and a half deep, and had only about half as many stalks as the first: the roots at two inches depth showed but four in a hundred, and those at two and a half but nine in a thousand; yet these latter had only put forth a single ear; whilst the former, in the rye and wheat, produced from two and one-fifth to four and one-sixth. Hence it is clear that the lightly lying seed, if it be sufficiently covered with earth for the corn to germinate, and the germ protected from the immediate effects of the air (or rather from the sun-beams,) has the advantage.

[For the New York Farmer.]

ART. CLI.—*On Chess.*

Chess occurs this season in very unusual quantities in many wheat-fields; and instances have been mentioned where *this weed* constitutes more than half the produce. It is time that our farmers should take the trouble diligently to enquire into this subject. As long as they believe that 'it is no matter whether their seed wheat is mixt with chess or not, because it always springs from damaged wheat' so long will every person who makes a right use of his eyes and mind, expect such a result as we now witness.

The following brief extract is from *Louden's Encyclopedia of Plants.* "*Bromus secalinus* [Cheat or Chess] is often found among rye and wheat crops."

"In *Scania* as *formerly in Britain* rye was supposed to degenerate into this grass."

This is another version of the old fable. It appears however, that the British farmers, and probably even the Goths of Scania are at length freed from this prejudice.

Let our farmers take the same care in extirpating *chess* that the better class do in extirpating *cockle* from their fields, and we shall hear no more of the transmutation of *wheat.* But as long as these *weeds* are allowed to ripen and scatter their seeds on the field while the harvest is gathered,—thrown into the barn yard among the manure,—eaten but not digested by the cattle that ramble over the farm,—or sown even in small quantities with the seed wheat, we ought to expect nothing different.

D. T.

ART. CLII.—*Proceedings of the New-York Horticultural Society.* [Continued from page 161.]

July, 19. Mr. Mc Kinzy, gardener to Charles Oakley, Esq. presented a very beautiful Eugenia asteralis in blossom, Plumbago capensis, a large double variegated Balsam, six very large Moore Park Apricots, a dish of excellent Lima Beans, a plate of Nasturtiums, and a monthly George Pigeon Rose.

Mr. John Burns, gardener to Thomas Addis Emmet, Esq. two Musk Melons, raised in the open field.

Mr. T. Hogg, Florist, a Granville Rose, double purple seedling Dahlia very handsome, Clarkia pulchella, Vinca rosea, Hemerocallis fulva, pleno, Tagetes lucida, Lychnis grandiflora, Asclepias nivea, Echinops Ritro.

Mr. Floy, in blossom a Mimosa juliabrassia, a hardy and beautiful tree.

Mr. Wade, six early Masculine Apricots.

Mr. Joseph Shaw, 15 varieties of beautiful double Hollyhocks, two of which were black, and 11 varieties of double very beautiful and large Balsams.

REMARKS.—One the principal flowers exhibited is the Balsam. It belongs to the natural order, Balsamineæ, of which there are but two genera, Balsamina, and Impatiens, and 19 species. The well known elastic spring by which the seed are thown out, constitutes a principal character of the order. With the exception of Impatiens fructicosa, all the species are annuals. They delight in moist hot situations—and are propagated by seeds, and sometimes by cuttings.

Erratum. At page 161, under the remarks on the order Malvaceæ, for 'sunflower' read 'hollyhock.'

[For the New-York Farmer.]

ART. CLIII.—*Remarks on Gardening ; read before the Lyceum of Lansingburgh.*—By a MEMBER.

While gardening, as one of the fine arts, has received the attention of the philosopher, the poet, and the statesman, it is a subject which richly deserves the attention of every citizen.

Gardens are distinguished into vegetable, or kitchen gardens, fruit gardens, and flower gardens.

The two former, from their utility, are of universal interest, in supplying us with the comforts of life; the last is interesting to every person of any taste; and that any one should be destitute of a taste for the beauties of nature, is to suppose the blotting out of one of the universal principles of the human breast, for almost the first thing discernible in the little child, is its delightful emotions in viewing the objects of beauty around it.

The antiquity of gardening shows it to have been a subject of the earliest attention.

To the mind of the Christian, the antiquity of the garden is fraught with the most interesting reflections. The thought that man, in a state of purity and innocence, was placed by his Creator in a garden, where all manner of fruit grew in such abundance, gives a charm to the very name of garden, and associates with its scenery all that can be desirable to the taste and pleasing to the eye. But if we look at the bible as simply being what all admit it to be, the *oldest* book in existence, its mention of the garden of paradise establishes the antiquity of gardening, and proves the high estimation in which it was held by the early inhabitants of the earth.

The Grecian and Roman poets sung in praise of gardens, historians have spoken of particular ones as "delightful places," and the hanging gardens of Semiramis were numbered among the wonders of the world.

Like other things, gardening is much under the influence of fashion, and this all conquering despot has at times, too much sacrificed the useful for the ornamental; thus, by converting amusement into a business or profession, this grand reviver of the animal spirits loses its exhilarating power, and operates like an opiate upon the bodily system.

As France has been the notorious inventor of fashions, so also at one time did she introduce the entire artificial method of gardening, in which the shapes of trees, instead of being left to display their native beauty, were tortured into every imaginary form by means of the scissors and the knife.

This newly fantastic method was attacked with the shafts of ridicule, and was followed with the extreme of irregularity and confusion: and without now tracing the changes which have been made at different times, I will direct your minds to the increased attention to gardening in our own country and neighborhood, within a short time.

In a new country, yet thinly settled, every scattered family is in the midst of the great and beautifully variegated flower garden of the forest, made up of a numerous variety of trees, plants, and flowers. This is gradually cut down and destroyed, to introduce the cultivated fields, and the country is thrown into indifference for gardening as a fine art, until the defect is discovered, and public attention called to its supply. We now have arrived to this state in this region of our country, and in our own county we hail the recent organization of a horticultural society as the commencement of a new era in gardening.

But this society as such, does not expect to make gardens; it can only give a tone to public sentiment, and by proper exertions, infuse a stimulus into the minds of practical men, leading them to take hold of the spade and the rake, the pruning knife and the hoe, and thus make a practical display of all that can be useful and ornamental in the real garden.

Although no practical gardener myself, from a want of ground and leisure, and not from inclination, yet I hope to be pardoned for presuming to add a few thoughts which have occurred to me in reference to practical gardening.

1. In regard to local situation, in many cases we may have no choice, but must content ourselves to improve the only spot which we may have; but where a selection can be made, it is important to choose a spot of ground which may be least exposed to the severe winds, as these are extremely prejudicial to many tender plants and fruit trees, also to avoid too low a situation, where the dampness may be injurious.

When the ground is selected where at least a considerable portion will be exposed to the rays of the sun; more than is usually supposed depends upon the laying out or the plotting of the garden, and in this respect I cannot but express what appears to me to be a great error in many, and even most gardens, and that is, the mixing together into one plot of ground, the flower garden, the fruit garden, and the kitchen garden.

This practice seems to be the remains of the extreme of irregularity which followed the artificial gardening of France. In the agriculture of a farm this principle would be likely to bring ruin to the farmer, and it appears to me to be as wrong in gardening as in farming. Let the ground be regularly divided by every gardener who would cultivate flowers, fruit, and vegetables, into three distinct plots, and a family distinction is preserved, which not only adds to the utility of the whole, but also to the beauty. In each of these families there may be collected a sufficient number of members to constitute all the variety which can be desired.

The kitchen garden can never flourish without full exposure to the sun, and especially in the morning, and the filling it with trees will not fail to destroy its rapid growth, so inimical to the good quality of most vegetables; and this will be done not only by obscuring the solar rays, but also by withdrawing from the ground that nourishment, which should go to sustain the vegetable plants.

Above all, should the flower garden be plotted entirely by itself, for the important reason, that as this is designed for amusement, it will be often visited by the family and friends, and the ground be trod in such a way as would be injurious to the fruit tree and the vegetable.

Like the belles and beaux of Broadway, the flowers of a garden seem to court admiration, and the tread of the admirer does not dampen their hues; but like the laborer who is employed in useful work, the growing vegetable and the swelling fruit wish for retirement from public gaze, and the hand of the atten-

dant is the only one which can touch them with impunity.

While the flower shows its beauty no where so well as in the garden, the vegetable and the fruit have additional charms when they have been plucked from the branches, and are shown upon the sewer or the stall. Were I to choose a spot for a kitchen or fruit garden, I would select some inaccessible island where the stranger would never come, and where no countenance should be seen but that of the gardener and the proprietor himself.

When the ground for the different gardens is thus divided, due care should be taken in the position of the several members of each family, that each one may have that station best suited to its nativity.

While one plant requires to be shielded from too much heat of the sun, another requires all the warmth which can be thrown upon it; and the arrangement which this truth requires, can only be learnt from the experience of the gardener, either from his own observation or from the observation of others. A like experience is necessary in regard to the uses of different manures. One very great error arises from an idea that one kind of manure will be equally useful for every kind of vegetable, plant, flower, or tree.

These few remarks are not intended to embrace all that is essential in gardening, but simply to call the attention to what appears to me important in the great improvements which are now making in gardening.

The preparation of the soil, the different depths at which different seeds and trees should be placed in the ground, the manner of pruning, and the exclusion of all noxious weeds, are known to be of the first importance, and without entering into detail, permit me to call the attention of the audience to this subject in its numerous varieties. Do you regard utility? the vegetable and fruit gardens are worthy your study and attention.

Do you desire amusement which is not only innocent, but expanding to the soul of every one who from the beauties of creation can look up to the adorable Creator? the flower garden possesses charms of no ordinary claim.

Do you admire the painter's skill, and view with pleasure the variegated shades of his pencil? can you fail to be pleased with the far superior beauty which nature's pencil draws?

When you are called to view a beautiful painting, do you inquire who the painter is, and can you view the beauties of a flower garden, and not be called to think of Him, whose skill and wisdom is here so strikingly displayed?

Here is a book in which all who have a mind to think, can read, admire and adore. A garden is selected in the bible as an emblem of paradise, whose all is joy and peace and love.

Viewing it as such an emblem, what exalted association does it bring to the mind!—pursuing these, time itself is lost in the boundless expanse of eternity, and the spiritual man within us is cultivated—and fed with the good of holy contemplation.

An important moral in regard to the cultivation of the mind, and habits, may be drawn from the garden.

As the garden without culture will bring forth little else than weeds, so the mind without culture, will be filled with noxious weeds of evil, and such habits of vice will become rooted as to destroy every moral virtue. As you would pull up the weeds which start up around the plants in a garden, before they become deeply rooted, so should the first beginning of evil be eradicated from the mind, that the seed of virtue may grow up and vegetate with fruits of goodness and benevolence. This leads to those mental enjoyments which vice can never permit us to have, and makes the words of the poet equally applicable to the beautiful garden and the virtuous mind.

"I seem to hear, I seem to move,
And wander through the happy grove,
When smooth springs flow and murmuring breeze
Wanton through the waving trees." HORACE.

ART. CLIV.—*Miscellaneous, Original and Selected.*

Comparative Inspections of Wheat Flour of 4 principal districts for six years.

Years	Alb. & N. York.	Philadelphia	Baltimore.	Va. & District Col.
1830	870585	473876	597804	775911
1829	705175	297206	473604	621824
1828	686704	333764	546450	525746
1827	652032	351517	372759	381055
1826	527700	342250	596348	486168
1825	446611	294289	510425	490740

Quantities of Flour and Grain exported from the U. States, from October 1, 1821, to September 30, 1830 inclusive.

Years.	Wheat flour.	Rye flour.	Corn-meal.	Wheat	Corn
	Barrels.	Barrels.	Barrels	Bush'ls	Bush.
1830	1225881	26298	145301	45289	444107
1829	837385	34191	173775	4007	897655
1828	860809	22214	174639	8906	704902
1827	865491	13315	131041	22182	978664
1826	857820	14472	158625	45166	505381
1825	813906	29545	187285	17960	869644
1824	996792	31879	152723	20373	779297
1823	756702	25665	141501	4272	749034
1822	827865	19971	148288	4418	509098
1821	1056119	23523	131669	25812	607277

Punctual Payments.—MR. EDITOR, You observe in the last number of your Journal, that you "would wish every subscriber, in the course of every month, would make it a point to write one communication, on whatever subject occurred to his mind." It occurs to my mind that, according to your terms of publication, I am in arrears for the 4th volume of your paper; I therefore enclose you three dollars, the amount of my subscription for this volume. That punctuality is the life of business, is a truth, that will I am persuaded, never be questioned by the publisher of a periodical. Few pursuits in life, are better calculated to promote a punctual discharge of our duties than farming. The seasons are to be observed, and seed time, and harvest are not to be neglected. Correct farming requires our business to be performed at the proper time, and in a proper manner. Respectfully, J. F. *Newburgh, July*, 11, 1831.

REMARKS BY THE EDITOR.

The expenses that have occurred for the last three months, by sending out agents, have been 30 per cent

on the collections. But very few have any idea of the losses which publishers of papers experience by their subscribers omitting to *send* the money. Some owe us for four years—and they are *able to pay.* A subscriber may live ten, twenty, or fifty miles from any other, and we may be at the expense of sending three or four times, and not find him at home.

Remedy for Wounded Fruit Trees.—In a communication which I addressed to you a year ago last January, I mentioned that I had had the bark gnawed from a favorite young pear tree, by a mischeivous sow a short time before, and requested you, or some correspondent to inform me what I could do to save it.—The case was probably thought a desperate and hopeless one, as my request was not noticed; indeed I considered it so, as the bark was entirely torn from the tree more than two feet from the ground and the wood considerably mangled. But I have now the pleasure to inform you, that the tree is yet alive and is now bearing young fruit which promises to come to maturity in due time. The method I took is as follows. The wound was covered with mortar made of equal parts of the droppings of cattle, clay, and old lime plaster, and bound on with coarse tow.—This remained on till spring, when becoming hard and dry, I took it off and applied a covering of grafting cement, made with 3 parts rosin, 3 bees wax, and 1 tallow, and covered the whole with a thick matting of coarse tow, in which situation it has since remained. The accident has checked the growth of the tree, to be sure, but I think it will recover.—*N. E. Farmer.*

Canada Thistle.—It has been found that cutting off the thistle, several times in the course of the summer, particularly so that the water can get into the stalk, will effectually destroy them. Every farmer should have public spirit sufficient to destroy all those in the street near his lands.

The little Harvest Rose. By J. M'Creery.

When Autumn winged the blast with power,
To sweep the bending forest bare,
Deep in the vale I found a flower,
A little rose that linger'd there;
Though half its blushing sweets had fled,
And leaves were edged with winter snows,
Yet still the fragrant odours shed,
Declar'd love's emblem was a Rose.

With cautious, though with eager haste,
I seiz'd the little fading prize,
Then in my bosom fondly press'd,
The faintly blushing flowret lies:
I flew impatient to my fair,
My heart with fond affection glows—
"A flower! my love, to deck your hair,
A little, modest, Harvest Rose!"

When first its vivid blooming hue,
The am'rous zephyrs kiss'd with pride,
Oh then! my life it look'd like you
When first I clasp'd my blushing bride:
Its fragrance still, though flown the dye
Is thy pure soul, where friendship glows,
It proves, though love's warm ardours die,
That friendship lives—sweet Harvest Rose.

Red Pepper to destroy Insects.—A writer in the Genesee Farmer, states that he has found a strong solution of red pepper to be a never failing remedy for the destruction of the insects that injure melon and cucumber vines. Break and boil the pods and then apply the liquid.

Peas Planted with Potatoes.—It is recommended to farmers to plant peas in their potato hills. A farmer to the east of us says he raised more peas last year from a peck sown in this way, than from a bushel sown in any other way. The vines of the potatoes serve as sticks for the peas to run up on; and the size of the peas will be much increased by planting in this way. After the potatoes are planted, go through the rows and plant three peas in a hill.—*Maine Farmer.*

To make Potato Cheese.—In Thuringia, and part of Saxony, a kind of potato cheese, made in the following manner, is generally preferred to that obtained from milk.

Boil good meal of potatoes, and when cold, peel and reduce them to a uniform pulp, with a rasp or mortar. To five pounds add a pint of sour milk and the requisite portion of salt; kneed the whole well, cover it, and let it remain three or four days, according to the season; then re-kneed it, and place the cheese in small baskets, that the superfluous moisture may run off; then dry them in the shade, and place them in layers in large pots or kegs for a fortnight. The flavor is improved by age. This cheese has the advantage of never engendering worms, and of keeping in a good state for many years, in a dry place and in well closed vessels. The addition of potatoe pulp would no doubt, render the butter-whey cheese, used in many parts of this country, more easy of digestion.

Silkworms.—An impression has prevailed, that if silkworm's eggs are exposed to a freezing temperature, they will be destroyed. This is found to be incorrect.

New York Cattle Market, Monday July 18, 1831.—Our Market was well supplied this week with some very excellent Oxen from the States of Virginia, Ohio, and Kentucky,—amounting in the whole, to 700 head—600 of which were disposed of, on an average of $6 per hundred, and some very extra Beasts sold for $6,75 per hundred.

In general the Market was very brisk at the prices above stated.

There were not any Cows or Calves at Market, neither Sheep nor Swine, this may be owing to the to the season of the year, when the industrious Husbandmen are gathering in their harvest.

Hay,—at the prices of last week, viz. New Hay 40 to 50 cts.; Old do. 50 to 60 cts. per hundred, and but very little at Market, this week in particular.—[Reported for the New York Farmer by D. Drew.]

New York Produce Market, July 20.—No change worth reporting—none anticipated soon except a reduction in the price of wool.

Green Corn.—We acknowlege the receipt of a delicious mess of green corn, from the garden of Mr. Alexander Walsh, of this village. Mr. W., as a horticulturalist, stands unrivalled in this part of the country, and is noted for his early productions. We visited his beautiful garden a few days since, and were delighted with the fine display of vegetables, fruits, plants, and flowers.—*Lansingburg Gazette, July 4th.*

[For the New York Farmer.]

ART. CLV.—*Sketch of a Lecture delivered before the Rensselaer County Horticultural Society, by* PROF. A. EATON, *on the Decay and Death of Plants.*

Lansingburgh, July 14, 1831.

DEAR SIR,—We transmit to you for publication, a sketch of a Lecture delivered by Prof. A. Eaton on the 12th inst. As the lecture was given extemporaneously we can present no more than a few principal heads.

Mr. E. enumerated six periods of duration of plants, as proper for the consideration of the horticulturalist, though not recognized by the scientific botanist.—1. Midsummer termination, as flax and oats; 2d. Autumnal termination, as indian corn and cabbage; 3d. Annual termination, as wheat and rye; 4. Biannual termination, as thistle and mullen; 5. Radical perennial duration, as tansey and sage; 6. Cauline perennial duration, as apples and cherries; he said he should confine himself to the two kinds of perennials.

He referred to the known fact that perennials of the most extended duration have a limit, and that the living principle, in all organized beings, seems to gain strength until the natural limit of increase in size is attained. Here it remains stationary for a proportional period, and then begins to yield to its ever active and untiring enemy, *chemical* attraction. At last the living principle is overcome and the constituent atoms, of the organized body are left to the unopposed laws of chemical combination. Putrifaction necessarily insues, and those atoms, whose arrangements gave such elegant symmetry to the vegetable or animal while under the control of the living principle, now unite in the form of disgusting gasses, liquids and shapeless solids.

Mr. E. then led his auditors to the necessity of the reproduction of plants from the seed, in order to perpetuate the existence of species. He showed that propagating plants by the buds, was merely a local extension of the same individuals, and not a reproduction. The buds of roots (as those called eyes on the potato) are analagous to the buds of trees; and that planting potatoes, engrafting and inocculating with buds, are but different methods of performing equivalent operations. Consequently old age has the same effect in such cases, as upon a single unextended individual. Engrafted trees are subject to the unfeeling effect of years, equally with the original tree from which they were taken, though the branches of the original tree may be thus continued for centuries after the original one is dead, by its food being, as it were masticated by the young stocks into which they are engrafted. Hence the importance of setting grafts of long admired fruit into young and thrifty growing stocks and the grate absurdity of engrafting at the root and afterward cutting away all the original stock leaving the graft, enfeebled by age to masticate and prepare its own food.

From the preceeding statement Mr. E. inferred that the practical horticulturist would perceive the necessity of renewing from the seed the best varieties of apples, pears, peaches, plumbs, cherries, currants, gooseberries, potatoes, carnations &c. This may be done with little trouble or expense by planting annually three or four square feet with the seeds of such plants and training them until their qualities are known.—Then the good varieties may be multiplied indefinitely, and the bad ones rejected.

Unfortunately the science of vegetable physiology was not yet progressed far enough to aid the horticulturist in the art of procuring desirable varieties from seed. He will eventually succeed by patient perseverance only; the subject was rendered familiar by the exhibition of a few very common specimens, and by references to parts familiar to the most careless observer.

The above Lecture was well recieved by the assembly of Ladies and Gentlemen who were present on the occasion, and by them thought worthy of publication, but as it was not written it could not be obtained. I hope you will think this sketch, which by the way, gives but a faint view of its excellencies, worthy a place in your useful paper.

E. F. W.

ART. CLVI.—*Proceedings of the New-York Horticultural Society.* [Continued from page 173.]

July 19, Mr. Jesse Weeks, of Brooklyn, presented 11 Brussels Apricots, very large and of a superior flavor. The tree trained against a wall, is six years old, and has this season about 500 fruit.

Mr. Hyslop, gardener to N. Prime, Esq. a Musk Melon, fine flavor, raised in open air.

Mr. Wilson, nurseryman, decorated the table with a princely Bouquet of Flowers, consisting, in part, of Yucca filamentosa, Lobelia cardinalis, Lilium tigrinum; Vitex Agnus castus; Phlox maculata, P. paniculáta, Asclepias tuberosa, Spirea tomentosa, Double perennial Sun flower, Champney and Noisette Roses, and two varieties of Honeysuckles.

Mr. Floy, florist, exhibited very choice flowers; the following are green house plants, Fuchsia cocinea, Passaflora alata, Hoya carnosa, Hibiscus rosa sinensis. Others more hardy were, Rose of the four seasons, Noisette cluster and monthly Rose, Champney's do do. Rosa odoratissima (an American seedling,) White cluster monthly Rose, Clematis florida, C. viorna Bignonia radicans, B. grandiflora, Kerria japonica Vitex incisa, Magnolia cordata and obovata in flower the second time.

Mr. Mc Kinzy, gardener to Charles Oakley, Esq. about 40 specimens of flowers; Datura stramonium from South America, Lychnis calcedonia, Globe thistle, Monarda dydima.

REMARKS. Loudon has the following remarks on the Advantages of the Natural System. The facilities which the habit of viewing natural bodies with reference to the relations they bear to other bodies, and not as insulated individuals merely possessing certain peculiarities by which they may be referred to some station in an artificial system, ultimately gives to investigations of the naturalist, are so great, that difficulties of the nature just alluded to should not be suffered to influence the botanist in determining which line of study he will follow, whether that pointed out by Linnæus, or that traced by the hand of nature. By the artificial system of Linnæus, indeed, no great difficulty exists in determining the number of stamens or stiles possessed by a given plant, or the nature of their combination, and from the knowledge so obtained, in referring to the class and order of the Linnæan system.

ART. CLVII.—*Proceedings of the Rensselaer Horticultural Society—4th Exhibition—June* 14.

In consequence of a fair weather notice, and of the rain, some misunderstanding arose, and the articles exhibited were sent in on three successive days. Professor Eaton, appointed to lecture on that occasion, attended on the first day, and delivered an Address worthy of the reputation of this veteran lecturer. The articles presented may be indicated by the following notices, though imperfect, as well as the new impulse given to productions of the garden of the farmer, by this young effort of the society.

Mr. Gorham, of Lansingburgh, presented early dwarf and Windsor beans, very fine potatoes, rhubarb, and ripe cherries of peculiar size and flavor.

Fine large beets were produced from Mrs. Gardener's place, Troy.

Mr. Norton, of Lansingburgh, presented a quantity of fine, full grown potatoes, and beets—nine different varieties of cherry, deliciously ripe—nine varieties of rose, and several species of flowers.

Mayduke and American cherries were produced from the garden of Philip Heartt, Mount Ide, Troy.

E. R. Parmalee, Lansingburgh, a basket of red, and a basket of fine English strawberries, and early cherries.

Mrs. Cone, Lansingburgh, a pretty thornless double and single French rose and elegant hiderangea.

Mr. Briggs of Schaghticoke presented nearly two quarts of strawberries. These delicious berries were on an average, nearly three and an half inches in circumference. Some measured four and a half inches. Their flavor was as rich as their size was extraordinary.

From the garden of Mr. Alexander Walsh, Lansingburgh, Salsify, or vegetable oyster, Broad Bean, (vicia faba,) Bush Bean, Green Globe Artichoke, Early York Cabbage, Green Curled Endive, Preserved (bottled) Gooseberries, Green Gooseberries from two varieties of bushes received this last spring from England; White Tartarian, Yellow, Spanish, Apple, and seven varieties of Cherries; a specimen of very superior Keens' Seeding, and Chili Strawberries, some of which measured 4¼ inches; Ripe Raspberries; a specimen of last season's reeled silk and cocoons; Cotyledon orbiculata; Double white cape jessamine; Emperor Rose; double sweet Briar in flower; Bizrad triumphant, dark purple Augustine, and moss Rose; Hop tree, a branch with hops and foliage; Sensitive tree, Mimoso pigra.

Mr. Kilbey, of Van Schaick's island, brought fine potatoes and beets.

Mr. Roller presented half grown grapes from the vineyard, and wine made from his grapes of last season.

ART. CLVIII.—*Report of a Committee of the Massachusetts Horticultural Society, on the Expediency of Measures being taken for the Establishment of an Experimental Garden, and Rural Cemetery.* [Continued from page 143.]

The Committee to whom was referred the method of raising subscriptions for the Experimental Garden and Cemetery, beg leave to Report:

1. That it is expedient to purchase for a Garden and Cemetery, a tract of land, commonly known by the name of Sweet Auburn, near the road leading from Cambridge to Watertown, containing about seventy-two acres, for the sum of six thousand dollars: provided this sum can be raised, in the manner proposed, in the second article of this report.

2. That a subscription be opened for lots of ground in the said tract, containing not less than two hundred square feet each, at the price of sixty dollars for each lot,—the subscription not to be binding until one hundred lots are subscribed for.

3. That when a hundred or more lots are taken, the right of choice shall be disposed of at an auction, of which seasonable notice shall be given to the subscribers.

4. That those subscribers, who do not offer a premium for the right of choosing, shall have their lots assigned to them by lot.

5. That the fee of the land shall be vested in the Massachusetts Horticultural Society, but that the use of the lots, agreeably to an act of the Legislature, respecting the same, shall be secured to the subscribers, their heirs and assigns forever.

6. That the land devoted to the purpose of a Cemetery shall contain not less than forty acres.

7. That every subscriber, upon paying for his lot, shall become a member for life, of the Massachusetts Horticultural Society, without being subject to assessments.

8. That a Garden and Cemetery Committee of nine persons shall be chosen annually, first by the subscribers, and afterwards by the Horticultural Society, whose duty it shall be to cause the necessary surveys, and allotments to be made, to assign a suitable tract of land for the Garden of the Society, and to direct all matters appertaining to the regulation of the Garden and Cemetery; five at least of this Committee shall be persons having rights in the Cemetery.

9. That the establishment, including the Garden and Cemetery be called by a definite name, to be supplied by the Committee.

Joseph Story, Daniel Webster, Henry A. S. Dearborn, Samuel Appleton, Charles Lowell, Jacob Bigelow, Edward Everett, George Bond, George W. Brimmer, Abbot Lawrence, Franklin Dexter, Alexander H. Everett, James T. Austin, Charles P. Curtis, Joseph P. Bradlee, John Pierpont, Zebedee Cook, Chas. Tappan, Lucius M. Sargent, George W. Prutt.

Boston, June 11, 1831.

Resolved, That the Report of the Committee on an Experimental Garden and Rural Cemetery, be accepted and that said Committee be authorised to proceed in the establishment of a Garden and Cemetery in conformity to the Report which has this day been made and accepted.

[For the New-York Farmer.]

ART. CLIX.—*Insects Injurious to Fruit*—By N. DARLING, Esq.

MR. FLEET.—On page 133 of your current volume, "D. T." has described a new enemy to the vine, and expresses a wish to be informed "whether this insect has appeared in other places." I hope your corres-

pondents in all parts of the country, will answer this enquiry.

For New Haven, (Conn.) and its vicinity, I answer that this insect made its appearance last spring, but not I believe, for the first time. Its numbers, however, were unusually great, and the injury which it has done to the vines, is wholly unexampled. Some vines were entirely dispoiled of their fruit buds, so as to be rendered for the present season, barren. An Isabella that bore 300 bunches the last year, is now destitute of fruit. The ravages of this bug were succeeded by those of a small chesnut-coloured, smooth worm or slug, quarter of an inch in length. The bug is supposed by some to be the parent of this worm or slug. This, however, is only supposition, and that not very probable, as it is not common among the *insect* tribes, to find the parent and the offspring, at the same time feeding upon the same food.

It may be deserving of attention that vines trained upon a wall or board fence wholly escaped the ravages of the bug. The reason probably is, that the sheltered vines put out their leaves a fortnight earlier than those which were exposed; and, when the bug appeared, were too far advanced to be much injured.

I have discovered a fact in relation to the *curculio*, which, as it may lead to further discoveries, I shall be excused for communicating. Fessenden in his "New American Gardener," page 175, says, "The insect *(curculio)* retreats into the earth and *passes the winter in the chrysalis state*, and comes forth just as the young fruit is forming, to renew its mischievous labours." With a view to ascertain the correctness of this account, I put some moist earth into a tumbler, about the 1st of June, and placed about twenty small peaches, containing worms upon the earth, and covered the tumbler with a piece of glass. June 30th, the worms had all left the peaches, and had crawled into the earth below. July 7th, the worms had divested themselves of their skin, without having formed a shell or cocoon, and were nearly changed to bugs.—At this time they were white, and shewed upon the breast the soft rudiments of the proboscis, legs and wings. These parts had not attained their full size, and appeared immoveable. One insect, however, had completed its metamorphosis, and was a perfect bug of a mahogany colour. All have since left the earth of their own accord, having finished their change, and are now (July 19th) creeping about the tumbler, and feeding on a plum leaf. On the 10th of July, I opened the ground under a peach tree, and found the insects in great numbers, from two to four inches beneath the surface, in all stages of their metamorphosis. July 19th, I found one in the earth, under an apple tree, but could find none under peach trees. It appears then that *this insect retreats into the earth about the 1st of June, where it divests itself of its skin, and changes into a bug before the 19th of July, by which time it leaves the earth.*

What becomes of the bug from July to May following, remains to be discovered.

Some other circumstances, not stated above, are worthy of notice. 1st. On presenting some bugs, in their white soft state, (July 10th,) to fowls in a coop, they were greedily picked up. 2dly. While in the earth, the body of the insects appears to be in constant motion. Taken out and put into a glass, without earth, they soon cease to move; their legs and wings do not appear to enlarge, but become hardened on the breast; the wings do not spread over the back, but remain in their first position. The animal appears to be covered with a hardened gum which confines the limbs. Some of them have died, and the rest will probably share the same fate. In order to effect its metamorphosis successfully, it seems necessary for the insect to be enclosed in earth sufficiently moist to keep its exterior soft and pliable, and where by its constant motion it can rub off the gum that surrounds it.

These circumstances suggest *for trial*, two modes of extirpating the insect—stocking the fruit orchard with fowls, making the earth under the trees mellow enough for their toes to penetrate easily the retreats of the insect; or hauling away the earth under the trees, about the 10th of July, to the depth of three inches and spreading it thin in the sun.

Paving under the trees as proposed by Mr. Prince; shaking the trees frequently, as proposed by Doctor Thatcher; catching the insects in a sheet as proposed by "D. T." are all ineffectual guards against the ravages of this insect, in a country full of orchards, as is Connecticut.

The curculio is not the only insect that produces the worm in our fruits. I stated above that about twenty peaches were placed in the tumbler. In the earth under them were six small, oval cocoons, thick, strong and smoothly spun, which contain worms that manifest no approach towards a change. The same cocoons are also found under peach trees. The worms in these envelopes are different from those of the curculio; they are smaller, they are white throughout, while the larvæ of the curculio have orange-colored heads.

There is reason for the belief that the larvæ of the curculio, all or most of them, leave the various fruits in which they are deposited as early as the beginning of July, and that the worms found in fruits after that time, have a different parent. Some years ago, I preserved a worm from a Vergalieu pear which produced a grey miller. Last November, a worm from a Newtown pippin placed itself in a cavity on a board, covered itself with a web, and remained till April, when it produced a grey miller like that produced from the pear.

I enclose for your examination, and if you please, a *description*, (for I am no entomologist,) the miller from the pippin, and a few curculios in various stages of their metamorphosis, with three cocoons mentioned above; also a male and female bug, that like the rose-bug, attaches the blossoms and leaves of the grape-vine, and is nearly as destructive.

Woodbridge, July 29, 1831. N. DARLING.

REMARKS.—We have only time at present, to state that we are much pleased with the above communication.—*Ed.*

[For the following interesting article we are indebted to the Monthly American Journal of Geology and Natural Science—a periodical entertaining and useful, and calculateed to raise the character of our countrymen in Natural Science.]

ART. LCX.—*Influence of Climate on the Fruitfulness of Plants.*

The cultivated plants yield the greatest product

near the northernmost limit in which they will grow.

I have been forcibly impressed with this fact, from observing the productions of the various plants, which are cultivated for food and clothing in the United States. The following instances will go far to establish the principle, viz:

The cotton, which is a tropical plant, yields the best staple, and surest product, in the temperate latitudes. The southern parts of the United States have taken the cotton market from the East and West Indies, both as regards quantity and quality. This is partly owing to the prevalence of insects within the tropics, but principally to the forcing nature of a vertical sun. Such a degree of heat developes the plant too rapidly—runs it into wood and foliage, which become injuriously luxuriant; the consequence is, there are but few seed pods, and these covered with a thin harsh coat of wool. The cotton wool, like the fur of animals, is, perhaps, designed for protection; and will be thick and fine in proportion as the climate is warm or cool. Another reason is to be found in the providence of the Deity, who aims to preserve races rather than individuals, and multiplies the seeds and eyes of plants, exactly as there is danger of their being destroyed by the severity of the climate, or other causes.—When, therefore, the cares and labors of man counteract the destructive tendency of the climate, and guarantee their preservation, they are, of course, more available and abundant.

The lint plants, flax, hemp, &c. are cultivated through a great extent of latitude; but their bark, in the southern climates, is harsh and brittle. A warm climate forces these plants so rapidly into maturity, that the lint does not acquire either consistency or tenacity. We must go far north in Europe, even to the Baltic, to find these plants in perfection, and their products very merchantable. Ireland is an exception as to latitude; but the influence of the sun is so effectually counteracted there by moisture, and exposure to the sea air, that it is always cool: hence the flax and potatoe arrive at such perfection in that region.

It holds equally true in the farinaceous plants. Rice is a tropical plant; yet Carolina and Georgia grow the finest in the world; heavier grained, better filled, and more merchantable, than any imported into Europe from the Indies. The inhabitants of the East Indies derive their subsistence almost exclusively from rice; they must be supposed, therefore, to cultivate it with all skill and care, and the best contrivances for irrigation. Such is, however, the forcing nature of their climate, that the plant grows too rapidly, and dries away before the grain be properly filled. Indian corn, or maize, if not a tropical plant, was originally found near the tropics; and although it now occupies a wide range, it produces the heaviest crops near the northern limit of its range. In the West Indies it rises 30 feet in height; but with all that gigantic size, it produces only a few grains on the bottom of a spungy cob, and is counted on only as rough provender.—In the southern part of the United States, it reaches a height of 15 feet, and will produce 30 bushels to the acre; in the rich lands of Kentucky and the middle states it produces 50 or 60 bushels to the acre; but in New York and New England, agricultural societies have actually awarded premiums for 150 bushels to the acre, collected from stalks only seven feet high.—The heats of a southern sun develope the juices of this plant too quickly. They run into culm and blade, to the neglect of the seed, and dry away before frutification becomes complete.

Wheat is a more certain crop in New York, the northern part of Pennsylvania and Ohio, and in the Baltic regions of Europe, than in the south either of Europe or America. In the north, snows accumulate, and not only protect it from the winter colds, but from the weavil, Hessian fly, and other insects that invade it; and in the spring it is not forced too rapidly into head, without time to mature fully, and concoct its farina.

A cold climate also aids the manufacturing of flour, preserving it from acidity, and enables us to keep it long, either for a good market, or to meet scarcities and emergencies. Oats grow in almost every country; but it is in northern regions only, or very moist or elevated tracts, that they fill with farina suitable for human sustenance. Rye, barley, buckwheat, millet, and other culmiferous plants, might be adduced to illustrate the above principle; for all their habits require a more northern latitude than is necessary to their mere growth.

The grasses are proverbially in perfection only in northern and cool regions, although they will grow every where. It is in the north alone that we raise animals from meadows, and are enabled to keep them fat, and in good condition, from hay and grass alone, without grain. It is there the grasses acquire a succulence, and consistency enough, not only to mature animals, but to make the richest butter and cheese, that contribute so much to the tables of the luxurious. The grasses which do, often, in the south, grow large enough, are without richness and nutriment; in hay, they have no substance; and when green, are too washy to fatten animals; the consequence is, most animals in those latitudes browse from necessity, and are poor, and without size or beauty. It is the same hot sun which forces them to a rapid fructification, before they have had time to concoct their juices. The sugar cane produces, perhaps, better where it never seeds, than in the tropics; for the juices will never ripen so as to granulate, until checked by frost or fructification. In the tropics, the cane grows twenty months before the juices ripen; and then the culm has contracted a woody, fibrous quality, to such a degree as to resist the pressure of the mills, and yields but little juice, and that to an increased effort. In Louisiana we succeed well with the sugar culture; because, whilst the culm is succulent and tender, a white frost checks the growth, ripens the juices, and in five months gives us a culm, tender, full of juice, easy to press, and yielding much grain of sugar. When Louisiana, therefore, acquires all the necessary skill, she will most probably grow this article cheaper than the West Indies.

Tobacco is a southern plant, but there it is always light and chaffy; and although often well-flavoured, it never gains that strong narcotic quality, (which is its only peculiar property,) unless you grow it as far north as Virginia. In the south, the heat unfolds its bud or gem too soon, forces into full expansion the leaf, and drives it to seed before the narcotic quality can be properly elaborated. We may assert a general rule applicable to all annual plants, that neither the root, nor the leaf, acquires any further size or substance after fructification.

The tuberose, bulbous and other roots, cultivated for human and animal subsistence, are similarly affected by climate, and manifest habits in corroboration of the above principle. The Irish potato, although from or near the tropics, will not come to perfection but in northern or cool countries, or in moist, insular situations, as Ireland. It is in such climates alone, that its roots acquire a farinaceous consistence, and have size, flavour, and nutriment enough to support, in the eminent way in which they are susceptible, animal life. In the south, a forcing sun brings the potato to fructification before the roots have had time to attain their proper size, or ripen into the proper qualities for nourishment. In Ireland the plant grows slow, through a long and cool season, giving time for its juices to be elaborated, and properly digested; hence that fine farina and flavour which characterises them. The sweet potato produces larger, better flavoured, and more numerous roots in Carolina, where it never flowers, than in the West Indies. In the latter place this plant runs wild, covers the whole face of the earth with its vines, and forms so much foliage, that the root is neglected and is small and woody. In order to have the onion in perfection, it must grow through two years, swelling all the time its bulbs. In the south, however, it seeds in one year, and before it has made much bulb. Beets, carrots, parsnips, turnips, radishes, and other roots, are equally affected by a hot sun, and scarcely worth cultivating far to the south. They all fructify before they have formed perfect roots, and make foliage at the expense of their bulbs: hence they will always be articles of commerce; the south will have to depend upon the north for them.

The sallad plants are in like manner affected by climate, and give further proofs of our assumption. Cabbages, lettuces, endive, cellery, spinage, plants, whose leaves are eat, to protect their germs from cold, (through a kind of instinct,) wrap them up in leaves, which form heads, and render many of their other parts tender and crisp for use. These leaves, thus protected, are not only tender, but more nutritious, because their growth has been slow, and their juices well digested. In the south, a relaxing sun lays open the very buds of such plants, gives a toughness and thinness to the leaves, and they are too unsubstantial for animal support, because of such quick and rapid developement.

[To be continued.]

Art. CLXI.—*The Mortgaged Farms of New England.*

The last *Christian Examiner* contains an excellent article entitled, 'The Morality of our Political Situation,' from which the following extract is made. It 'contains truths too notorious to be denied, and too solemn to be trifled with.'

'Here is a community, we are accustomed to say, free flourishing and prosperous, beyond example; there never was a country in which all men from the highest to the lowest, from the richest to the poorest, could be more independent. And yet, if we were to travel over this same favored land, and were to enquire into its real condition; if not satisfied with fine landscapes, and flourishing fields, and goodly dwellings, and the appearance of well clad citizens, we were to enquire into the state of property, and the degree of real independence and comfort that prevail, we should be astonished at the appalling amount and distressing burden of pecuniary obligation. We should find an almost incredible proportion of the community laboring under this load and pressure. Debt, universal debt, would meet us wherever we turned our eyes: The farmer owes the trader, the mechanic owes for the raw material; the trader owes the importer. In many districts, the country traders will testify that a considerable proportion of the debts contracted for what are considered the necessaries of life, lie unpaid for two or three years,—yes, and they lie, in the shape of mortgages upon real estate. We have been in some of the most beautiful townships in New England, and have been amazed, on inquiry, to find that half of the farms in them were under mortgage!!

'Now there are several causes to be assigned, doubtless, for this extraordinary state of things; but one distinct and prominent cause unquestionably is to be found in that state of political equality which we are considering. It creates a large unproductive class, in the female members of innumerable families in the country. The daughters of our *substantial farmers*, (as they are called) cannot go out to service; it would be a degradation, as they would deem it. Meanwhile the cheapness of the fabrics that are sent out from our manufactories, has superseded the labors of the loome and the distaff. Spinning and knitting are obsolete toils. And the labors of only one or two can contribute any thing to the support of the family. At the same time, this non-producing is by no means a non-consuming class,—as the bills of the merchant show to say nothing of that grosser part of the account, which the granary and the cellar have to render.

'It is perfectly evident that farmers, with moderate means, must go down under this burden. They do go down by thousands! And what is infinitely the most to be regretted, they go down in property. They lose heart and courage. They often sink under it, to indolence, vice, and ruin.'

Art. CLXII.—*On Bees.*

About the first of June last, I placed a fine swarm in a dark room six feet square, over my wood house, to prevent swarming and to be out of the way of the moth, fifteen feet from the ground. Some twenty or thirty bees found their way through a crack in a door opening into a chamber, where I laid by with other boxes an old hive partly filled with comb, in which the bees had perished the last winter for want of food.—The bees could not find their way back—and much to my surprise, commenced clearing out the *old hive* which had not contained a live bee since April. They worked two days before I was aware of it. I opened a window to permit them to escape. They continued to work for three weeks, until I added to them a small swarm which I found hanging on a tree. *I would ask where these* TWENTY *bees obtained a queen—as we are told they will not work without one.* They could not, I think, have found any eggs in the cells, as the hive in question was one into which the bees had been driven from one infested with the worm—long after the season of breeding was past—and too late to obtain a supply of honey for the winter. Yours truly, S. W.—*N. E. Farmer.*

ART. CLXIII.—*Soluble Caseum and its Use.*

An excellent, because practical, memoir on milk has been published by M. Braconnot, in the *Annale de Chimie*, xliii 337, which offers many applications of a substance long but not thoroughly known, not a few of which we anticipate will hereafter come into use. This substance is caseous matter, or, as he has called it, *caseum*.

Soluble Caseum, and its Applications.—2500 parts (grammes) of the curd of new cheese, as sold in the market, were heated to 212° for some time: it contracted, and became a glutinous elastic mass, swimming in much serum. Being washed in boiling water, to remove the acid serum, and dried, it weighed 469 parts. It was a compound of caseum with acetic and lactic acids; being divided, put into sufficient water with 125 parts of crystallized bicarbonate of potassa, and heated, it dissolved with effervescence, producing a mucilagious liquor, distinctly reddening litimus paper. Being evaporated carefully with continual agitation, it left a soft portion, which, as it cooled, acquired consistency, was drawn out between the fingers into thin portions, and then dried in the air upon a sieve: it weighed 300 parts. This *soluble caseum* is a subcaseate of potassa, containing still butter and salts. It resembles isinglass, is of a yellow-white color, translucent, and of a stale taste: it is perfectly soluble in hot or cold water, producing a fluid milky by the presence of butter.

In this impure state the substance is easily prepared: instead of the bicarbonate, the potash of soda of commerce may be used. The following are hints for its application. Like gelatine, it may be preserved without alteration for any length of time, and may be obtained in enormous quantities if required. Associated in various ways with food, it must prove of the greatest importance on board vessels for long voyages. Its aqueous solution, sugared and flavored with a little lemon-peel, makes an agreeable and nourishing drink for invalids. It is a powerful cement; its solution, evaporated on glass or porcelain to dryness, cannot be removed without injury to the vessels; its hot concentrated solution has been applied with great success to join glass, porcelain, wood or stone. The same solution forms a brilliant varnish: being applied to paper, it makes labels which, when moistened and attached adhere with great force. It may be used instead of isinglass in dressing silks, ribands, gauze, preparing artificial flowers, &c. It has not answered in endeavor to clarify beer, but is equal to milk or cream in the clarification of table liquors, giving them the softness and qualities of age. It may be used in place of creamed milk in the clarification of beet-root, sugar, syrups, &c. in conjunction with animal charcoal, without exciting any fear regarding the presence of serum. M. Braconnot thinks also, that by the help of a little ammonia, the greater part of the curd previously separated as above from its serum may be taken up and converted into a dry substance, which, with the help of earthy salts, will be of great service in clarification: for, having dissolved some of this preparation in water, a small quantity of muriate of lime, sulphate of magnesia, or even sulphate of lime in powder was added; the liquid remained clear whilst cold, but the slightest effect of heat made it coagulate uniformly throughout; the coagulum gradually contracted, and a perfectly clear liquid issued from it.

Milk has always been considered as a certain antidote in some cases of poisoning. The soluble caseum will perform the same office against most of the metallic salts, but there is reason to believe that white of egg is better than either against corrosive sublimate.

[For the New York Farmer.]

ART. CLXIV.—*On Chess.*

So far as I know, the advocates of *the doctrine that wheat sometimes turns into chess*, entirely appeal to facts (so deemed) and have never fatigued themselves with any chain of reasoning on the subject. It is evident however, though the language of Botany is unknown to them, that they consider chess to be only an inferior *variety* of wheat. This view reduces the matter in controversy to its simplest form. But wheat and chess respectively belong to different *genera*, (*Triticum* and *Bromus*) and NO SPECIES HOWEVER SPORTIVE, EVER RUNS BEYOND ITS OWN GENUS. It is therefore impossible that any such transmutation can ever happen.

An utter ignorance, or misunderstanding, of the leading principles of botanical science, is consequently necessary to the adoption of that preposterous notion, which but few botanists have condescended even to notice. Most of them however have referred to *introduction* of chess as *a weed*, proving conclusively that they consider it nothing but *a weed*, propagated by its own proper seeds, and not in any case springing from damaged wheat or rye. I will give some extracts:—

Bromus secalinus.—"Probably *introduced* from Europe."—EATON'S MANUAL. "*Introduced.*"—NUTTALL'S GENERA. "A well known grass. In *rye* fields frequent and inthe neighborhood of barns. *Introduced.*"—BARTON'S FLORA. A very noxious grass to farmers. Doubtless *introduced* from Europe."—TORREY'S FLORA. T.

Note:—I understand Professor *Eaton's* language differently from C. F. To me, he appears to give no opinion whatever respecting the origin of chess (no more than the origin of an oak) but simply a hint of its primitive locality. Chess, like cockle, is found in the corn fields of Europe (*Gray's* Nat. Arr. British Plants) and it is more probable that it came from that country whence we obtained our cereal grasses, than from Asia or Africa,—or from our wood or prairies where it has not been found,—or that it grows indigenously in our fields, lately covered by woods. *Torrey* holds more positive language. *Nuttall* and *Barton* only assert the fact of its *introduction*; and for him who knows it is a native of Europe, this is sufficient.

[For the New York Farmer.]

ART. CLXV.—WILSON'S ORNITHOLOGY.—*The Rice Bird.* [Continued from page 129.]

Some naturalist has described a bird of very singular habits, that is found in Cuba. It was said to be confined in the olden time to that island, but since the introduction and cultivation of rice in our southern states, *the female* has found the way to the continent where she is known by the name of *the rice bird*, always leaving *the male* behind and making these excursions alone The circumstance has been cited as

a remarkable instance of a change of character, and one which has taken place almost in our own times.

Now who would suppose that this wonderful bird is that enlivener of our fields and meadows in Western N. York called *Bob Lincoln*? yet it is no other than *Bob* himself escaped from *the limits*. Dressed in a parte-colored coat, with a voice of many modulations, and a heart overflowing with gladness, he sings wether perched on the fence, a stump, or a tree; but his vivacity seems greatest when he rises on the wing, and shoots himself along, seemingly indifferent to his course, and only intent on his song.

The mystery which envelloped this bird, so long impenetrable to our older ornithologists, was at length dispelled by the perseverance and sagacity of Wilson. *Bob* only wears his fine coat during the amorous season; and then so much like the female, as completely to escape detection in that disguise.

During his stay in this district, he behaves well, appears to feed exclusively *on insects*, and is consequently entitled to the regard and protection of the farmer; but after he turns traveller, and visits other lands, we hear a bad report of his conduct. "As soon as the young are able to fly, says Wilson they collect together in great multitudes, and pour down on the oat-fields of New England like a torrent, depriving the proprietors of a good tithe of their harvest; but in return often supply his table with a very delicious dish. About the middle of August they revisit Pennsylvania [near Philadelphia] on their route to winter quarters. For several days they seem to confine themselves to the fields and uplands; but as soon as the seeds of the reed [wild rice] are ripe, they resort to the shores of the Delaware and Schuylkill in multitudes; and these places, during the remainder of their stay, appear to be the grand rendesvous. The reeds or wild oats, furnish them with such abundance of nutritious food, that in a short time they become extremely fat; and are supposed by some of our epicures, to be equal to the famous *ortolans* of Europe. Their note at this season is a single *chink*, and is heard over head, with little intermission, from morning to night. These are halcyon days for our gunners of all descriptions, and many a lame and rusty gun barrel is put in requisition for the sport. The report of musquetry along the reedy shores of the Schuylkill and Delaware is almost incessant, resembling a running fire. The market of Philadelphia at this season, exhibit proofs of the prodigious havoc made among these birds, for almost every stall is ornamented with strings of Reed-birds."

"In the states south of Maryland, the harvest of early wheat and barley in spring, and the numerous plantations of rice in fall, suffer severely [from these birds.] Early in October, or as soon as the nights begin to set in cold, they disappear from Pennsylvania, directing their course to the south. At this time they swarm among the rice fields; and appear in the island of Cuba in immense numbers in search of the same delicious grain. About the middle of October they visit the island of Jamaica where they are called *Butter-birds*. They feed on the seed of the guinea-grass."

"The song of the male, while the female is sitting, is singular and very agreeable. Mounting and hovering on wing, at a small height above the field, he chants out a jingling medley of short variable notes, uttered with such seeming confusion and rapidity, and continued for a considerable time, that it appear as if half a dozen birds of different kinds were all singing together. Some idea may be formed of this song by striking the high keys of a *piano forte* at random, singly and quickly, making as many sudden contrasts of high and low notes as possible. Many of the tones are, in themselves, charming; but they succeed each other so rapidly that the ear can hardly separate them. Nevertheless the general effect is good; and when ten or twelve are all singing on, the same tree, the concert is singularly pleasing." Vol. 2. p. 170—176. D. T.

ART. CLXVI.—*Miscellaneous.*

Agricultural Prospects.—Mr. Fleet: In the course of my late agricultural visits, during the last two months of May and June, through the states of New-Jersey, New-York and Connecticut, I have the pleasure of communicating the following brief statement relative to that important *main-spring*, from whence every other *science*, *art*, and *manufacture* derives their support, namely—*Agriculture* and general *Husbandry*.

In the first place, the crops of grass are abundant. The late rains, although injurious to the hay farmer—in some instances, yet, in general, the grain and corn crops have been materially benefitted, and the prospect is very promising. The garden and orchard are likely to produce a yearly average supply of excellent fruit, roots, &c. The cattle and live stock of all kinds are in a fair and thriving condition. The prospects of the meat, butter, cheese, poultry and other productions of the farms, are very abundant at present for the ensuing fall and winter consumption.

Having met with much attention and respect from an enlightened and industrious class of the American Husbandmen, I will endeavor in a future communication to state some particulars relative to the adaptation to the soil, of the different breeds and kinds of cattle, as far as my experience has hitherto enabled me. I remain, Sir, yours, respectfully, John Fisher. New-York, July 10, 1831.

Solid Stem Wheat. We had an opportunity a few days since, of seeing a lot of wheat upon the farm of Dr. Wilson Waters, of Rhode river, from which, we presume, something upwards of a bushel will be reaped—that if we mistake not, will be a valuable acquisition: it is the third product of a few grains of seed brought home by our fellow citizen Lieut. Mayo, of the United States Navy, and obtained by him upon the Plains of Troy, in Asia Minor, which he spent some time in visiting a few years ago, when the ship on board of which he then served, was in the Archipelago. The grains of this wheat are somewhat larger than those of wheat common to this country, though perhaps not quite as large as the wheat from the mountains of Chili. The stalk is peculiar for being nearly solid, instead of hollow, and more tapering than other wheat; the first joints being larger, and forming a more substantial base. The head has a thick stiff beard, not less than six inches in length. It averages about forty grains to each head, which we ascertained to weigh one-third more than the same number of grains of the blue stem wheat growing alongside of it, and which also averaged forty grains to the head.

Forty grains of the former weighed thirty-one grains, the same number of the latter weighed but nineteen grains. This being the third year that this wheat has vegetated in our climate and upon our soil, although but in specimen, we may fairly assure that it has been tested and found to answer well. It is said to be valuable more especially from the protection which the solidity of its stalk affords from the depredations of the FLY, so destructive to other descriptions of wheat. It will also be much less liable to fall, we presume, from the same reason.—*Annapolis Rep.*

Salt for Sheep.—Much has been said of late about the health and management of sheep, and as mine have been preserved free of all diseases and in excellent thrift, I will state to you my treatment in respect to a few particulars. They are kept upon a blue grass field, which serves them perfectly both summer and winter, unless the ground may be covered with snow. I have a hickory pole about twelve inches in diameter at the large end—barked, and one side blazed and holes bored two inches in diameter, three inches deep and five inches apart from end to end, these are filled with salt twice a week, and in the winter, and early in the spring, a little tar is placed in the bottom of each hole, or hickory ashes are mixed with the salt. The pole is moved about upon the poorest places in the field. All my stock is salted in the same way—and my desire is to enable the stock to get a portion of salt nearly every day in the week. My young sheep 13 months old yielded last May from 7 to 9 lbs. superior wool. I change the ram every two years—not permitting him to go to his own lambs—nor the young ewes to take a ram until a year old. The ram is separated from the flock excepting at a particular season. That season should commence in our latitude in October or in March, so as to prevent the lambs coming during very cold weather. Respectfully, yours, &c. R. E. P.—*Amer. Farmer.*

Wheat Crops.—The wheat crops have been greatly injured by the heavy rains throughout this part of the country; the accounts from the eastward are various, In some parts the crops are said to be much greater than usual, in others, they have been much injured.—Upon the whole, we think the quantity of wheat and flour that will be brought to market this year will be somewhat larger than usual,—the extra quantity of wheat sowed will probably more than supply the deficiency occasioned by the damage to the crops.—*Cincinnati Tiller*, July 15.

Sudden Death from Cold Water.—While seldom a summer passes without the occurrence of a number of sudden deaths, in our principal cities, from drinking cold water, it is a remarkable fact, that the lives of very few of our sober and industrious farmers, in the interior of the country, are destroyed from the same cause; though it is well known that they partake freely of cold well, or spring water; and that too, when, during harvest, their bodies are greatly heated by exercise and exposure to the sun. The reason why they feel so little inconvenience from a practice, which, if followed by the generality of laborers in the city, would be promptly fatal, is readily explained, by the greater amount of health and vigour they possess, in consequence of their temperate and regular lives, their habits of active exercise, and constant exposure to a free and wholesome atmosphere. The cases of sudden death from the use of cold water, which occur during summer, in our cities, will be found almost exclusively confined to those labourers whose habits are decidedly intemperate, or who make use, at least, of a considerable amount daily, of ardent spirits; and who, at the time the water is drunk, are exhausted by fatigue and the heat of the weather. —*Journal of Health.*

Insects in Barley—Flying Itch. This is the name of a complaint which prevails extensively in Salem, Gloucester, Newburyport, and other towns in Essex county, and which is thus noticed by a correspondent of the Salem Gazette:—

This prevalent and troublesome complaint, I am inclined to believe, is caused by insects bred in barley straw of last year's growth, used in filling beds. This belief is founded on the following facts and observations. This complaint has been prevalent for three years past. For four years most of the barley straw has contained insects in the chrysalis state, which have greatly injured the crops.

So far as my inquiries have been extended, the afflicted have slept on beds filled either wholly or in part with barley straw of last year's growth, and those whose under beds have not been so filled, have generally escaped the infection.

On a strict examination such straw beds will be found to contain vast numbers of minute insects nearly white or transparent, scarcely discernable by the naked eye, but which, through a microscope, appear louselike, extremely active, and covered with pointed bristles twice the length of their bodies. They may be best seen on black cloth, on which they readily collect, when placed among the straw.

This complaint has been most speedily relieved by a solution of Corrosive Sublimate, or other ointments or washes which readily destroy insects.

Silk Worms.—It is stated when the leaves of the Mulberry tree have been nipped by frost, or when the worms are hatched before the leaves put forth, they may be fed upon the dried leaves of the Mulberry, gathered before the frost commences in Autumn. The leaves must be dried in the sun, by spreading them on large cloths; after which they must be reduced to powder. When it is necessary to feed the worms, moisten the powder with water very gently, and a thin coat of it round the young worms, which they immediately begin to feed upon. This is likely to prove useful to those who are engaged in cultivating the Silk Worm in our state.

Wheat Crops in Genesee.—The prospects are not as favorable this season as usual, with regard to wheat, but are far from discouraging. The Hessian fly has done considerable damage, and from the continuation of warm damp weather, many pieces of wheat are injured by the rust.—*Genesee Farmer, July 16th.*

New York Cattle, Market, Monday, July 25.—About 700 head of cattle at market the past week.—A considerable part of them from Ohio and Virginia. Sales very dull; average $5¾. With very few exceptions the cattle were quite inferior; and to this cause principally the dullness of sale is to be attributed. At this season of the year it is not desirable to make cattle extra fat, neither is it profitable to send those that are too lean.

Of Sheep and Lambs 7 or 800. Sales slow.

Hay, from 50 to 63 cts.

[For the New York Farmer.]

ART. CLXVII.—*Deception in Flowers.—Travelling Florists.*

"The Flower markets of Paris," says the conductor of the Gardner's Magazine, "occupies an open area of about two acres, and the stands of the different Florists are almost always kept by the wives or daughters of the growers. We made several purchases here," says he "and were amused at the clumsy attempts made to impose upon us by the fair dealers. We were fully prepared for this; and, indeed should have been surprised had these lively and agreeable women acted otherwise."

Now, like Mr. Loudon, I have not the least objections to a lively and agreeable French woman getting the advantage of me occasionally: but I confess my feelings are different when I am cheated by one of my own sex, of whatever nation.

In the month of February or March last you published an advertisement—and printed Catalogues were issued and distributed, purporting that the SIEUR FAYET COMP'E, Jardiniers, Flouristes et Pépiniéristes from Paris, and were exhibiting for sale in Fulton-Street, a choice collection of Ornamental Shrubs &c., and would remain but for a short period, being as they stated, on their way to the Island of Cuba.

I confess that the erroneous spelling of a great many Botanical names in a catalogue issuing from a scientific establishment in Paris, might have excited my suspicions of imposture: but this is a fault from which even the New-York Farmer is not free. Then the numerous varieties continually introduced by cultivation and discovery, made me think it possible that the Sieur Fay &Co. might possess the *Viburnum* (Guilder Rose or Snow Ball) producing *red, yellow, rose,* and *variegated flowers.*

But when I got among the Roses, I was delighted —Like my brother Florist in Bedford-Street, "I'm dreadful fond of Roses," and in my simplicity would have purchased a number of the new varieties, had I not been dissuaded by a judicious friend who was present. Besides the *Grande Cuisse de Nymphe,* the colour of which is not stated, *we had green, blue, brown* and *flazen* Rose—white with *black,* and white with *yellow* stripes—red with black stripes—red with yellow edges—black and brown with white borders, &c. &c. The Sieur Fay, if that be his name, when I expressed surprise at such curious varieties, assured me that every one named was true and genuine, for all were grown by himself. But I was particularly attracted by a *Violet Moss Rose,* an engraving of which *coloured from nature* was exhibited to me. You will say that I ought to have known the wood of a Moss Rose at sight, this is true, and my only excuse is, that several of my friends who profess more botanical knowledge than I pretend to do, purchased a number of these Roses, not one of which has flowered according to its label. My hopes and fears are also at an end.

As when a hen in the straw sees with surprise her first chick burst its calyx and waddle forth a *duckling* —such was my disappointment a few days ago when my first *Violet Moss,* emerged from its shell, a *common Blush Rose.* I blush when I look at it, and give this notice through your Paper that simpletons like the writer may be warned against trading with these travelling nurserymen in future.

After all, I wish to return good for evil: and as your Journal will probably reach the Sieur Fay in Havanna, would hint to him not to return via New-York, for some who dealt with him when here might prove *ugly customers;* after this advice, the least he can do, is to send me a box or two of "Dos Amigos" Segars directed to your care, and I promise him that all our future dealings shall be *under the Rose.* R.

[For the New-York Farmer.]

ART. CLXVIII.—*The opinion of Judge Peters on Cheat or Chess.*

The late Judge PETERS, President of *the Philadelphia Society for promoting Agriculture,* one of the most enlightened farmers of the age, gave his opinion of cheat (chess) as follows:

"I do not believe in the transmutation of grain from one kind to another, more than I credit the transmutation of metals, crossings and hybridous *mixtures* are to be accounted for, but *they* proceed from intercourse of perfect plants. *Cheat* often succeeds, or rather takes the place of, destroyed or abortive wheat. Why? I do not pretend to assign the cause."

[The cause is readily assigned. The fields of the careless farmer's, are well seeded with *this grass,* waiting for an opportunity to spring up; and no spot suits it better than a *rich* or *moist* vacancy in a wheat field.]

"I have known *cheat* sown, produce *cheat*; but never changed its kind on frequent repetitions. Plants degenerate by bad, and meliorate by good culture; but DO NOT CHANGE THEIR KIND. Wheat is originally a mean gramen; yet it is *wheat* and not *cheat.* I have never seen any scientific or botanical description of cheat, so as to induce me to believe it a degenerated wheat, or any *variety* of the *Triticum.* Botanists must determine this question." [Memoirs of the Philadelphia Society, &c. vol. 4 p. 316.]

Botanists,—*the only persons who have examined this subject with sufficient care to be qualified to give an opinion,*—have long since determined that *wheat* and *chess* are of different genera; and that the notion of a transmutation of the former to the latter, is *a vulgar error,* fraught with pernicious consequences to the farmer. D.T.

Mr. Ediror I send you the following to occupy a small space in your useful paper. A.

ART. CLXIX—*Temperance—Extract from an address delivered before the Lansingburgh Temperance Society, 17th May, 1831, by N. Tulleton Esq. of Troy.*

The vice of intemperance is making an annual draft upon the physical resourses of this nation that is truly appalling. It has been said that before any movement in the temperate cause, thirty thousand drunkards annually paid the forfeit of their lives to this insasiate foe of the human race. And year after year the fell destroyer claims his annual hecatombs of human victims. It is said from an accurate calcu-

lation, that we have an army of three hundred thousand drunkards constantly billetted out through these United States upon the productive industry of the nation. That the yearly destruction of thirty thousand drunkards requires a like annual drain of an equal number from the temperate part of the nation to fill up the broken ranks of drunkenness. Oh, the fearful waste of human life. What sacrifices, what drains upon the industry of this nation would be required? What groans, what lamentations would be uttered were this nation engaged in a perpetual foreign war, that should call into the field 300,000 of our citizens, and require an annual sacrifice of 30,000 victims in the field of battle. Our whole country would be clothed in the habiliments of woe, and this land would become the charnel house of the world. Yet the fact is no less true that 30,000 of our citizens are annually sacrificed on the altar of this Dagon of drunkenness. Yet still the public mind is hardly awakened to the monstrousness of this vice! What a sensation is created, what a rush of sympathy for the sufferers bursts forth through this wide land at the destruction of a score of lives by the bursting of a steam-boiler. Yet every week more than 500 of our fellow citizens are destroyed, and sinking down to remediless woe by this one vice. Oh, the apathy of the public mind is heart-sickening to the patriot and philanthropist. The ruinous waste of property is not the least of the evils of intemperance. It was estimated that the annual amount paid for ardent spirits, before the temperance movement, had risen to the incredible sum of thirty millions of dollars. Add to this amount, the loss of time of three hundred thousand drunkards, the amount paid in support of paupers, self-made beggars by intemperance, the expense of bringing to justice criminals, made so by this one vice, and the sum total would swell to an amount that would stagger credulity itself.

Art. CLXX.—*Swine.*

Little is necessary to be said on this subject, as probably no branch of husbandry is better understood in this state, than the raising of pork. As the old thin long legged breed still prevails in various quarters, the sooner another is substituted for it, the better; besides, it is a gaunt voracious animal, difficult to fatten, and having too large a proportion of bone.

In breeding, the sow should be selected with great care; broad and straight backed, with wide hips; a great many teats: short legs, and fine bone. Farmers differ much in their plans of raising holding stock for pork; some permitting their shoats to run at large eighteen months, till they are penned up to fatten; this is the most troublesome and least profitable way; others give them a range in clover pastures, and begin to fatten them earlier. I apprehend there is a much more profitable way, and attended with less trouble for those who have the right breed. According to the quantity of pork wanted, should be the number of breeding sows kept over, and there should be no other hogs on the farm but the breeding sows. These, when they pig the latter end of March, should be fed in the most attentive manner, with swill and shorts. The pigs from a full grown sow, will generally be twelve in number; these should be thinned down to eight, and as soon as they begin to feed freely out of the trough, should be weaned, and afterwards fed regularly with green tares, clovers, boiled potatoes, ground peas, unmerchantable corn, or any other nourishing food; turning them out every day into a small yard, where there is a shallow pond for them to lie in. A remarkable breed of pigs which had been treated pretty much in this manner, were exhibited at the last Duanesburgh Fair; when eight months old, one of them was slaughtered, and weighed exactly three hundred and eleven pounds; they attracted universal attention, and I certainly never saw such animals before. This method is attended with little trouble, and leaves so small a quantity of stock on hand to winter over, appears to me to be more economical in every point of view, than any other which is practised.—*N. Y. Memoirs in Agri.*

Art. CLXXI.—*The Pear.—Pyrus Communis.*

'The juicy pear
Lies in a soft profusion scattered round.
A various sweetness swells the gentle race,
By nature's all-refining hand prepared,
Of tempered sun and water, earth and air,
In ever-changing composition mixed.

The accounts we have of this fruit is of great antiquity, as the pear tree was consecrated to Minerva previous to the olive.

The earliest writers mention it as fruit growing abundantly in Syria and Egypt, as well as in Greece; and it appears to have been brought into Italy from these places about the time that Sylla made himself master of the latter country, although there is no doubt that the Romans had several kinds of this fruit before that time. Virgil speaks of pears that he had from Cato; and Columella mentions a considerable variety of pears. Pliny writes of them as being exceedingly numerous in Italy, and says that a fermented liquor was formed of their expressed juice. It is probable that the Romans brought the cultivated pear into England, but at what period we have no account; we may surmise, however, that they did not neglect the propagation of this fruit when they were masters of Great Britain. The pear is mentioned by all the early writers of that country.

'Both pears and apples,' says Pliny, 'have the properties of wine, on which account the physicians are careful how they give them to their patients; but when sodden in wine and water, they are esteemed wholesome.' Again he states—'All pears whatsoever are but a heavy meat, even to those in good health, and the sick are debarred from eating them; and yet, if they are well boiled or baked, they are exceedingly pleasant and moderately wholesome; when sodden or baked with honey they agree with the stomach.'

Some pears were used as counterpoises against the venomous mushrooms; the ashes of the pear tree wood are also used for the same medicinal purpose; and perry is considered as the best liquor that can be drunk after a surfeit of mushrooms.

In general pears are windy, and improper for weak stomachs; those are best that are quite ripe and have a sweet juice, and then they are seldom noxious unless eaten to excess.

The timber of the pear tree is a yellowish colour, and is used for making carpenters' tools, measuring rules, picture frames and a variety of purposes. Gerard says—'The timber of the wild pear is very firm and solid and good to be cut into moulds.' The plates of his book were cut out of this wood, as were, says he, 'breast-plates of the English gentlewomen.'

The varieties of the pear, like the apple are so numerous that we are unable to give an account of all of them. The following catalogue, however, contains the names of the most celebrated varieties growing in the Kenrick Nurseries, and the time the fruit is eatable:—

Citron des Carmes, Early Green Chissel, or Early Chaumontelle, Early Catherine or Rousselet Hatif, Fine Early, Jargonelle, August; Bartlett new—supposed synonymous with Williams' Bon Chrétien, Late Green Catherine, Mogul Summer, or Chelmsford, Preble's Bergamotte, Windsor, September; Andrews, Amory or Gibson, Harvard, formerly called L'Epergne, Brocar's Bergamotte, Seckle, October; St. Michael, October to November; Monsieur Jean, November; Prince's St. Germain, November to February; Large Yellow Winter, Spanish Bon Chrétien, November to January; Pound, November to April; Bezy de Chaumontelle, or Winter Beurre, November to February; Colmar, or Poire manna, December to March; St. Germain or Inconnue Lafare, November to April, Virgouleuse, or Poire de Glace, November to January; Belle de Bruxelles, August; Bergamotte des Paysans, September; Bergamotte de la pentecote, winter; Beurre d'Aremburg, November to January; Beurre Capiaumont, September to October; Beurre Knox November; Beurre Napoleon, October to November; Beurre Rance, or Hardenpont, des printemps, winter; Bon Chrétien Williams, September; Delices d'Hardenpont, January; Forelle, October; Gloria formerly Colmar d'Hiver, Lowell, winter; Marie Louise, November; Passe Colmar, Sylvanche Verte d'Hiver, winter; Urbaniste, October.

The pear tree is liable to be much injured if pruned by those who do not understand the nature of it. The blossoms are commonly produced from buds at the extremity of the last year's shoots, and as these are often cut off by the unskillful pruner, it prevents their producing fruit, and causes the boughs to send out new branches, which overfill the tree with wood. The summer is the best time to look over the pear trees, and to remove all the superfluous and foreright shoots which would too much shade the fruit. If this be carefully done they will require but little pruning in the Autumn.

Pears that are to be kept for the winter use should hang as long on the trees as the state of the weather will allow. They should then be put in a heap, in an open dry situation, for about ten days, then wiped with a dry woolen cloth, and packed close from the air and moisture. But to keep this fruit in its greatest perfection, small earthen jars should be selected, about the size of the pear, which should be packed separately in clean oat chaff, and tied down with skin or brown paper cemented with pitch. These jars should then be packed in a chest or dry closet, with the bottom upwards.

Pears are found more generally productive when grafted on quince stocks than upon those of their own kind or upon the white thorn.—*The Naturalist.*

ART. CLXXII.—*Extremes of Temperature injurious to the Growth of Plants.*

The subject of this article is that which almost every culturist will pronounce to be quaint, having been familiar to all—to savage and enlightened ages. However well known, we would beg leave to direct the attention of our correspondents to the means of prolonging the floral season of plants, delaying the maturity of fructification, increasing the growth of wood by protracting the plants from high summer temperatures. Much can be said on the subject, and we should be happy to have communications on it. In the Ency. of Agriculture, we find the following.

"Hence follows, that although during the winter, when vegetation seems totally at a stand, the tree being stripped of its foliage, and the herb apparently withering in the frozen blast, still the energies of vital life are exerted; and still the vital principle is at work, carrying on in the interior of the plant concealed from human view, and sheltered from the piercing frosts, operations necessary to the preservation of vegetable life, or protusion of future parts; though it requires the returning warmth of spring to give that degree of velocity to the juices which shall render their motion cognizable to man, as well as the expression to the whole plant which is the most evident token of life: in the same manner as the processes of respiration, digestion, and the circulation of the blood are carried into the animal subject even while asleep; though the most obvious indications of animal life are the motions of the animal when awake. Heat then acts as a powerful stimulus to the operations of the vital principle, accelerating the motion of the sap, and consequent development of parts; as is evident from the sap's beginning to flow much more copiously as the warmth of spring advances, as well as from the possibility of anticipating the natural period of their development by forcing them in a hot house. But it is known that excessive heat impedes the progress of vegetation as well as excessive cold; both extremes being prejudicial. And hence the sap flows more copiously in spring and autumn, than in either the summer or winter; as may readily be seen by watching the progress of the growth of the annual shoot, which, after having been rapidly protruded in the spring, remains for a while stationary during the great heat of summer, but is again elongated during the more moderate temperature of autumn."

ART. CLXXIII.—*Extract from an Address, delivered before the Berkshire Agricultural Society, October 7, 1830, by* THEADORE SEDGWICK, *President of the Society.*

Whatever great discoveries, or improvements are to be expected in the art of Agriculture, must be looked for from men, who have such a love for their occupation, as shall induce them to note down, from year to year, those minute shades of circumstances, which are displayed in the operations of nature. Indeed, had this been done generally with exactness, by intelligent farmers, there can be no doubt, that their art would be greatly more advanced than it is. It is worthy of remark, that many of the most valuable discoveries have risen in the way of which al-

lusion has been made, and from a course of observation in the power of any common man. The things wanted are the facts. These are presented to the notice of every farmer, gardener, and mechanic. The Philosopher analyzes them, and thus establishes those permanent principles, which become the common property of all mankind forever. There can, therefore, be nothing more useful to a farmer than a Farmer's Journal, nor any thing from which the community would be likely to derive more advantage, than the circumstance of such records being kept, even by a few of those intelligent men, from whose observation useful things seldom escape. This practice cannot be too strongly recommended. The tiller of the earth cannot appreciate his employment too highly. Other arts perish, his never perishes. He who discovers and makes known any principle of nature by which the fruits and vegetables of the earth are permanently increased and improved, does a good to his race through all ages. The farmer, therefore should pursue his business with pride and enthusiasm, with his mind devoted to his employment, never indulging in any discontent or disgust at his occupation, or believing that any employment is happier, or more worthy than his own.

We are all aware that, for many years past, the intemperate habits of our people have been a subject of great interest to all thinking persons. So much so, that scarcely any public occasion like this was suffered to pass on which it was not brought in review. Indeed, it was in the mind of every body. The alarm became general. The patriotism, the moral sense, the religious feelings of the community was addressed. The appeal was not in vain. We know the result. A Reformation, beginning here and there silently, among a few of the more enlightened and determined friends of humanity, was first recommended by their wise conduct. Practice is better than precept. One thing followed another—and now we want no statistical tables of the consumption of ardent spirits, to show us, that temperance is greatly increased. We have better proof. It is a fact which every man in the community, without exception, absolutely knows, of his own knowledge. Besides, it is not the falling off merely in the use of ardent spirits, but something better, and that which may be relied on, in opposition to the fears of those who exact a re-action; and this is, a deep conscious conviction, a thorough reformation, wrought in the very souls of multitudes of the most headstrong, sensual, and ignorant of men. This would be a foolish exaggeration, if it was intended to say, that there is not still great room for improvement. In regard to this revolution, there are several things to be remarked. It began mainly in New-England, and has been most successfully carried on here. Not by this, that, or the other influential man, but by the united strength of the rational and prudent people. By that mass of orderly, disinterested, thinking, conscientious persons, who never see their interests in continuance of vices or abuses. There is another circumstance which is peculiar. A Reformation so thorough and so sudden, in the vicious indulgences of a people never did take place. There is no history of such a thing. There have been as great and sudden changes, in institutions, in professions, in forms, in tenets. But moral changes, where the passions of men were to be regulated, or subdued, and such a passion too! have been the work of ages. It shows what an advance reason and religion have made, and it shows more, that men have new ideas of their capacity for moral improvement. It shows the power of public opinion in establishing a law, for those portions of society which always most require restraints; the *extremes;* the very high and the very low—the very rich and the very poor. Does it not prove, then, that the orderly, temperate, reasonable people are triumphant; and that we are encouraged to go on and extend our enquiries still farther into the principles of our prosperity?

These remarks upon temperance are made to show, how far an enlightened community have carried rational reforms in their manners and morals, and that other reforms are equally in their power, which are now to be spoken of.

These preliminary observations, then, bring me to the immediate subject, which I intend to lay before you.

It is an interesting fact in the history of mankind, that in many countries a great majority of human beings are miserable, through *poverty;* in all countries, great numbers are so. Not poor by comparison merely, but absolutely poor; that is, destitute not only of wholesome food and drink, of sufficient clothing, lodging, and fuel, but also of those various accommodations which nature demands. This is true in all the stages of savage and civilized life. Barbarous nations generally, are represented by travellers, as living in the most squalid misery; some, like the inhabitants of Terra Del Fuego, shivering with cold covered with filth and vermin. Others like the inhabitants of New Zealand, climbing the tallest trees in pursuit of the smaller animals for food, as the flying Squirrel and the Opossum. The English Colonists on the Banks of Hawksbury River, surprised a native with his child, in the act of eating worms, which were deposited in water-soaked wood.

[To be continued.]

ART. CLXXIV.—*Proceedings of the New York Horticultural Society.* [Continued from page 177]

August 2—Mr Floy presented several varieties of Dahlias, among which were a very beautiful double dark damask, scarlet turban, beauty supreme, Prince Leopold; Clematis flammula, Eucomis punctata, Bignonia grandiflora.

Dr. Ireland, a specimen in pot of Thunbergia alata, Hemerocallis japonica, Schizanthus pinnatus, Hibiscus palustris, Centauria americana, Epilobium angustifolium, and a variety of China asters.

Mr. Mc Kenzie, gardener to Charles Oakley Esq. a white and pink Hibiscus, Datura suaveolens (Brugmansia suaveolens?) from South America, and a very fine large free stone peach.

Mr. Knox, several varieties of white variegated Balsams, and perennial Sunflowers.

Mr. Henry Mackin, gardener to B.D. Perkins Esq. of Flushing, a very large Musk melon, weighing without the seeds, 6 lbs. 9oz., raised under frames; the seed was from La Grange, through England; two Prize Fighter Cucumbers, 18 inches in length, one very large Bergen Cabbage, 19¾ lbs., and 4 large beets, two of which weighed 6¾ lbs.

Remarks.—Among the fruit exhibited are the melon and cucumber, belonging to the Natural Order Cucurbitàceæ, which has 18 genera and 123 species — propagated from seeds. "Here is the station" says Loudon, "of the gourd, the melon, and the cucumber, succulent climbing vegetables, the fruit of which administers to us many of our comforts and necessities. The importance of the gourd in hot countries is of the highest degree, where, from the nature of the climate, few of those culinary vegetables that are so abundant in the north can be made to succeed. Among these tribes of climbing annuals, the papaw tree is a remarkable deviation from the ordinary character of the vegetation. Its fruit, however, and flowers are in all respects those of Cucurbitàceæ. The fruit is mostly sweet, watery, refreshing, and pleasant to the palate; the coloquintida gourd, the spirited cucumber, and the Trichosànthes amâra, are all possessed of violent bitter, drastic, purgative qualities, which are indeed to be found, in a slight degree, even in the mildest of the eatable gourds. M. Decandolle observes, that as the violent action of the Colocinth resin is much softened by the mixture of it with gum, it is probable that the difference in the fruits of the order depends upon the different proportions between these two substances. The seeds of the gourds, like those of the passion flower, possess none of the properties of the pulp; they are sweet and nutty, and readily form an emulsion. The roots of the bryony are purgative, but also contain a wholsome fæcula. It is said that the roots of a species of bryony are eaten in Abyssinia, after being merely boiled. There are some Cucurbitàceæ, the roots of which are intensely bitter; those of one of this description are used in Peru, to remove the pains attendant upon inveterate venereal disorders."

Art. CLXXV.—*Bene Plant.—Sesamum Orientale.* By J. Buel, Esq.

To gratify the enquiries which I observed in one of your recent columns, Mr. Editor, I send you the following.

The *Bene* is the *Sesamum* of Botany. There are two varieties, both native of the East Indies and of Africa. *Sesamum Orientale* has a white flower, which unfolds with us in August; leaves ovate lanceolate; lower three lobed, upper undivided, stem erect. *S. Indicum* has a pale purple flower, leaves ovate oblong entire.—Louden is evidently wrong [probably from a transposition of two lines by the printer,] in assigning to the Orientale entire ovate oblong leaves. The species I have cultivated some years has a white blossom, and the lower leaves three lobed.

The Bene was introduced into the West Indias by the Jews, who make the seeds into cakes; and in Carolina by the Negroes from Africa. It is cultivated in the Levant and in Africa as a pulse. The seeds afford a very fine oil for table use; and in Japan, China, &c. this oil is used instead of butter in frying fish, and in dressing other dishes. In the Southern States, the seeds are extensively used by the blacks, boiled with their hominy, and are sometimes made into pudding, like millet or rice. The variety known here is the *Orientale*. It grows from 1½ to 2 feet high. The seeds should not be sown in the open ground until the last of May or first of June. The best method is to start the plants under glass, and transplant afterwards into the open ground.

Medicinally, the Benne is used as a resolvent and an emollient. I have known it highly beneficial in diarrhœas, in adults as well as children, and in allaying local inflamation. One of the clergymen of our city, having witnessed its utility, procured, I understand, an ounce of seed, which he divided among his friends for cultivation. It is therefore growing in several gardens of this city. I have a few plants, which are freely tendered to those who may be desirous of obtaining them for medicinal uses.—*Albany Argus.*

Art. CLXXVI.—*Shaker Barn.*

Mr. Starr,—I hand you for the amusement and information of the practical farmer, a description which I have verbally received from a friend of mine, living in that vicinity, of a large barn built the last season, in the town of Hancock, Berkshire county, Mass. by the family of Shakers located in that town. It is possible, that in some points, the dimensions may be inaccurate; but you may rely that they are materially correct. Both the size and form are unfit for common purposes—very few farmers would wish to collect so much forage and manure, or have so much stock in one place; but all who have any experience in the business, will agree that there is much ingenuity and convenience in the design, for a large establishment.

The barn is built on ground inclining southwardly, in a perfect circle, and is ninety feet in diameter, across it from side to side. The walls are stone, 22 feet in height, of suitable thickness, and laid in lime or well pointed on each side. Round the barn, on the inner side, are stables forming a circle; the manger within and suitable places over it to throw or feed down the hay; the stable and manger occupy about twelve feet, and are eight feet high; the stables open to and from several different barn yards, in order to make as many and such divisions of their stock as they have thought proper. The covering of the stables form the barn floor, which also extend round the barn. There is one large door way for entrance with teams and loads; this is from the nothern side, from an offsett or causeway, 8 feet above the base, and of course fourteen feet below the eaves. The cart or waggon that enters with a load,— makes the whole circuit of the floor after unloading comes out at the same door; thus eight or ten teams with their loads can occupy the floor at one time, in unloading, and not hinder each other. Within this circle of stables and barn floor is an area or *bay*, as it is usually called which is filled with hay, &c, which must be over sixty feet diameter. This is pitched in and on from any side or place most convenient, or where wanted.

The roof comes to a point at the centre, and sheds off the rain all round, something similar to a umbrella. It is supported from the inner circle of the barn floor. The roof boards are laid up and down, which by a transverse sawing of the log were all brought to a point, and then shingled round in the usual mode.—*Middleton Sentinel.*

ART. CLXXVIII.— *Influence of Climate on the Fruitfulness of Plants.* [Continued from page 181.]

The delicious and pulpy fruits are, in a still more striking way, illustrative of our principle. The peach, nectarine, plumb, apple, cherry, currant, gooseberry, apricot, and many other such families, are not in perfection in the south. It is in Pennsylvania, Virginia, Maryland, Jersey, and in the north of Europe, that we enjoy them,—although, originally, they came from places near the tropics. The peach of the Carolinas is full of larvæ, gum, and knots, and too stringy, and forced to be juicy and flavoured. The apple of the south is too acerb to be either eaten or preserved.—The plumbs, apricots, cherries, currants, gooseberries, &c. will not even mature until we go far north. All the trees which bear these delicious fruits will grow luxuriantly in the south, make much foliage and wood, with but little pulp, and that unsavory. The kernel in the one-seeded fruit, seems to be the first object of nature in southern climes; that becomes strong, oily, and enlarged; and one of the peach family has so entirely neglected the pulp, that it has only a husky matter around the kernel, as the almond. The changeableness of the weather in the south, in the spring season, throws plants off their guard; the frost attendant on those changes, destroy the young fruit; and it is only one year in three that the crop hits at all. The desiccated or dried state of these fruits enables us to enjoy them through the year; but in the south their acidity carries them into fermentation or decomposition before they can be divested of their aqueous parts. The climate of the south is equally against converting them into cider, or any other fermented liquor, because the heat forces their compressed juice so rapidly into an active fermentation, that it cannot easily be checked until it passes into vinegar. For the same reason distillation goes on badly in hot climates, and cannot be checked long enough at the proper point to give much alcohol; and whether we aim to enjoy the delicious freshness of these fruits themselves, sip the nectarine of their juices, refresh ourselves with their fermented beverage, stimulate our hearts with their brandies and cordials, or feast through the winter upon the dried or preserved stores of their fruits, we are continually baulked by the severity of a southern climate, and for such enjoyment must look to the north.

The melons are always affected by too great a degree of heat, even though their vines flourish so much in southern latitudes. The forcing sun hurries them on to maturity before they have attained much size, or acquired that rich saccharine and aromatic flavour for which they are so much esteemed. The cantelope melon will rot, or have its sides baked by a hot sun, before it is fully formed; and the water-melon is always woody, dry, and devoid of its peculiar sweetness and richness in the south. Vines have been known to run 100 feet, and bear no melon. It is in Philadelphia, and its neighbourhood, and in similar latitudes, that the markets are loaded with delicious melons of all sorts, whose flavour so much refresh and delight us. It is there near their northern limit, that we cultivate them with such uniform success.

The orange, strictly a tropical plant, is more juicy, large and delicious, at St. Augustine, (Florida,) than at Havana; and fruiterers, in order to recommend an orange, will say that it is from some place out of the tropics. In the West Indies, the pulp of the orange is spongy, badly filled with juice, and has too much of a forced flavour to be pleasant. The hot-house forcers of Europe, or at Rome, anciently at first produced bad fruit; too dry, too small, and without flavour; because they overacted. They have lately found out that fact, and now the productions of hot houses of London, Paris, &c. astonish and delight us with the quantity and excellence of the fruit. They have found out that gradual and uniform heat is the desideratum; countervailing the cold, rather than imparting much heat. Fruit thus produced, is pronounced better than any grown in the natural way, however perfect the climate.

The juices of the grape are best matured for wine near the northern limit of their growth. On the Rhine, in Hungary, the sides of the Alps, and in other elevated or northern situations, the wine is strongest, richest, and most esteemed. The French wines rank before the Spanish and Italian; and in no southern country of Europe or Africa, except Madeira, where elevation makes the difference, is the wine in much repute. The grapes of France are more delicious for the table than those of Spain or Madeira. In the southern part of the United States, the excess of heat and moisture blights the grape to such an extent, that all attempts have failed in its cultivation. The grape vine, however, whether wild or cultivated, grows there very luxuriantly. The vinous fermentation can also be best conducted in a climate comparatively cool; and all the pressing, fermenting, and distillation of the juice of this delicate fruit, can be safer and more profitably managed in a mild region.

The olive, and other oleaginous plants, yield more fruit, of a richer flavour, and can be better pressed, and the oil preserved, in a mild climate. In France the tree is healthier, and the fruit and oil better than in Spain or Italy; and the Barbary States are known to import their oil from France and Italy.

Many other plants might be named, whose habits would equally support our position. It is presumed, however, that enough have been cited to call the attention of philosophy to this curious subject, and enable us to give proper attention to it, in all the practical operations of agricultural pursuit. Much time and expense might be saved, and profits realized, if this were more generally understood.

We have already observed, that the heat of the sun in southern climes forces plants to a false maturity, runs them on too rapidly to fructification, and renders dry and woody the culms, stalks, and leaves of the plants, where these parts are used. Hence the chaffiness of the leaf, the dryness of the culm, the lightness of the grain, and the unsavory spongy quality of the pulp of the plants in those latitudes. Hence the difficulty of fermenting their juices, distilling their essences, and preserving for use the fruit, juice, or blades of such plants. The prevalence of insects is another bar to the productiveness of southern plants: swarms of them invade and strip the leaves, bore the fruit, and lead to blight and decomposition; and just in proportion as the labours of man have rendered plants succulent, and their fruits and seeds sweet and pleasant, do those insects multiply on them, devour their crops, and defeat the objects of husbandry.

The labour of man too is more conservative in nothern climates, because his arm is better nerved for exercise, his health and spirits more buoyant; and

instead of saying, "go and work," he says, "come and work;" treads with a cheerful heart upon his own soil, and assists in the cultivation, collection, and preservation of his own productions. It is in temperate climates that man can be most familiar with nature; it is there he has the best opportunities of observing the guarantees which nature has for the preservation of her animals and plants against the devastation of the elements; he sees an occasional apparent neglect of individuals, but a constant parental care of races. In every thing he sees the wisdom and benevolence of God.

Art. CLXXIX.—*Miscellaneous, Original and Selected.*

Slobbers in Horses.—Change of pastures is said to be a cure to this inconvenient ailment.

Sowing Turnips.—The 25th of July, when it is said you must sow turnips, whet or dry, is past. We trust, for the sake of the state of Agriculture in our country, that there are but few farmers who strictly and literally regard the above adage. Let the ground be properly selected, manured, and in a moist state, and the seed evenly covered at a very moderate depth, then your prospects for a crop will be good, if the sowing has been delayed to the 15th or 20th of August.

Early Sowing.—Mr. Fleet, having noticed for a number of years past that late sowing or planting seldom answer as well as early, my belief has been recently more strengthened by the following facts. On the 15th day of July, 1830, I sowed on a piece of ground of about one acre and a half, one and a half bushels of Buckwheat, and the same quantity of Rye mixed and sowed together: I also, at the same time, sowed clover seed in the chaff on the same piece, and harrowed the whole in; the Clover took and grows well, the Buckwheat was harrowed at the usual time, but owing to the severe drought it produced but an indifferent crop. The Rye grew large and branched out full: some of the stalks were more than eight feet long, a number of the stools produced sixty, eighty, ninety, and one, one hundred and ten stalks with one hundred good ears or heads. The stool was taken upon the second instant, and shelled on the ninth, and counted by two respectable witnesses, and the number of grains was seven thousand two hundred and eighty five, and measured about half a pint from a single grain.—*Kingston, Ulster County, N. Y. July, 20th* 1831. S. Cousn.

The Season.—Since the 26th of June, or in 24 days, (now July 20) rain has fallen to the depth of six inches, as may be seen by the Meteorological Tables up to this date. On the 27th there fell 1 3-10 inches. July 5th, 1 3-10 do., and to day 20th, 1 5-10 inches rain. Out of 24 days 10 have been rainy, and but 14 fair. The Genesee is uncommonly swollen, and the falls, instead of waning till they become fordable above the sheet by every foot pad, have this season, thus far, preserved all their grandeur.

Forebodings with regard to the wheat crop have scarcely diminished up to this hour though many are harvesting; some talk of ravages by the hessian fly, others of rust, and at present all are anxiously waiting for a clear sky to secure the crop and know the worst. The growth has been uncommonly luxuriant, and abating contingences, promised the fairest and most abundant the country ever produced. Some fields in consequence of the great rains have fallen down, and are already much injured by sprouting and will be entirely ruined unless the season becomes immediately more propitious for harvesting.—*Genesee Farmer, July 23d.*

Silk, Domestic Industry.—A gentleman residing in this neighborhood made his appearance in town, a few days ago, attired in *a complete suit of silk, the product of his own filatory;* the whole process of culture, spining, weaving, and making, having been performed on his own farm, and by his own family.—The fabric in appearance, nearly resembles *Angola*, but is much softer, and evidently a superior description of goods. It surpasses any domestic fabric of the kind we have ever seen. The suit is gray mixed, and consists of coat, vest, pantaloons, and stockings.

We have no doubt from what we have already witnessed, that the culture of silk in North Carolina will in the course of a few years, become a branch of industry claiming the attention of many of our industrious and enterprizing farmers. In a measure it will rival the growth of cotton, and become an article of not only domestic utility, but of revenue to the country. Those who have attempted its culture with proper attention, have always found their efforts crowned with success; and they will yet deserve the gratitude of the people for reducing the theory to successful practice.—*Washington (N. C.) Times.*

Alum, means of Purifying Water—Pounded Alum is said to possess the power of purifying water. It is estimated that a single tea spoonful of pulverized alum, will purify four gallons of water. The water is to be stirred and kept in motion while the alum is sprinkled into it. The impure particles precipitate themselves to the bottom, leaving the water as pure as that of a spring.

Trees in Illinois.—In no part of the U. States is the growth of timber more rapid than in the State of Illinois.

Whole forests have grown up in the vicinity of the oldest settlements. Hundreds of acres *now* furnish timber suitable for rails and buildings, which less than forty years ago were clean, "smooth prairie" fit for the scythe. Every farmer living on the *prairie*, should endeavor to grow as much timber of the best quality as will supply him with firewood and fencing. The black walnuts and oaks are easily raised from the *nuts* and *acorns*, as well as the different varieties of the hickory. There is no doubt that a "forty acre lot" enclosed and planted in timber would yield a handsome profit in less than twenty-years, if properly taken care of.—*Illinois Ploughboy.*

The Season in Illinois.—There has been considerable fall of rain during the last two weeks, with some very warm weather, which has brought forward the late planted corn very rapidly, and should the season still continue favorable a good crop may yet be realized.

The *wheat harvest* in this and the southern parts of our state, is nearly over, and so far as we can learn, the crops have been good as to quantity and quality of the grain. In the nothern parts of the state, we learn that the crop was never better.—*Illinois Ploughboy, July* 13.

[For the New-York Farmer,]

JULY.

How sweet to breathe the evening air,
To stroll o'er nature's face,
To wander unoppress'd by care,
Among the flowery race.

See the proud lilies side by side,
Created but to please,
E'en Solomon in all his pride,
Was not like "one of these."

Then cast thy eye upon the ground,
And breathe the rich perfume
Reseda* scatters far around,
From her delicious bloom.

Then let the Balsams claim their due,
In splendid beauty drest,
While Dahlias seek a tribute too,
Superior to the rest.

Here Coreopsis' gilded flowers
Vie with the Lychnis' red;
And Oh! the fragrance from those bowers
Clematis over spreads.

Yet midst the whole the one to choose,
From Flora's diadem;
Should be the simple blushing rose
Which no one can condemn.

* Mignonette. A. J. D.

REMARKS. The manuscript of the above is that of a lady. We hope the writer will continue her favors, and be imitated by others of the fair who wander among the flowery race.—*Ed.*

Bread of Indian Corn.—The best mode of making this kind of Indian bread, is first to form the Indian meal into mush in the usual manner; this, when cold, is to be kneaded with the wheat flour, adding a small quantity of water, and the requisite portion of yeast and salt, and then allowed to rise, and baked as other bread.

Rye Bread.—Rye differs in its composition from wheat flour, in being more abundant in extractive matter, in containing less starch, and being nearly destitute of gluten. When employed alone, it requires the addition of a considerable portion of salt, not so much to improve its flavour as to give to it the necessary viscosity, without which it would be unfit to be subjected to the process of making bread. Some other precautions are also used in baking it, as that of applying heat suddenly at first, and then allowing the process to go on more moderately.

Odoriferous Substances Offensive to Insects.—It is said that the common mint strewed among grain as it is mowed away in the barn, will preserve it from being injured by vermin. Camphor, when kept among bed clothes, will keep away bed bugs and fleas. From these circumstances, together with the fact that we do not recollect of having seen plants strongly odoriferous injured by insects, we are led to conclude that farmers might be benefited by turning their attention to the subject. We should be pleased to have facts communicated for the New York Farmer.

Cider.—There is no better cider produced in any part of the world than in Baltimore. A hogshead of Baltimore cider was sent to the Hon. President of the Harvard University, by a friend in Baltimore a year or two ago, and was pronounced very superior by all who drank of it. It is far above what is called Newark cider.—*Ed. Amer. Farmer.*

Feeding Cattle.—In young growing animals the powers of digestion are so great, that they require food which is less rich, than such as are of mature age.—They also require more exercise. If rich food is supplied in liberal quantities, and exercise withheld, diseases are generated, the first of which may be excessive fatness: growth is impeded by very rich food, for experience shows, that the coarsest fed animals have the largest bones. Common sense will suggest the propriety of preferring a medium course between very rich and very poor nutriment.—*London.*

Harvest in Pennsylvania.—Not withstanding the fears entertained by our farmers for the preservation of the crops, in consequence of continuous and almost unprecedented rains,—we are happy to state, upon authority derived from almost every section of the country, that little grain has been injured; and that although the harvest has not been quite as prolific as was anticipated in the early part of the season, there is no serious cause of complaint.—*Reading, Penn. July* 16.

New Beans—Among the new vegetables now under cultivation in the garden of the editor of the American Farmer, there are two varieties of beans well worthy of being introduced into every kitchen garden.—One variety which we at present call the *Yellott Asparagus Bean*, has a large fleshy pod from 6 to 9 inches in length, very tender and rich. It is a pole bean, excellent bearer, and nearly as early as the common bush bean. The other is the London Horticultural Bean—resembling very closely in flavour the pole cranberry bean, but a much better bearer in this climate, and as early as the yellott bean. These two varieties are decidedly superior to any we have heretofore cultivated, both for productiveness and quality. They are both much the best when the pods and beans are full grown, especially the Yellott, which we prefer when the pods begin to assume a yellow tinge.

There is an objection generally urged against pole beans, on account of the trouble of providing poles; but it should be considered that a dozen hills of pole beans will produce more than four dozen hills of dwarf or bush beans, and that one set of poles will last several years if taken care of.—*Amer. Farmer.*

New York Cattle, Market, Monday, August 1.—About 600 head of cattle at our Market this week,—which sold upon an average of $6 per hundred.

From the Counties of Orange and Putman, there were about 100 of the above—very superior Oxen, which averaged full 6½.

Sheep and *Lambs*,—not any at Market.

Cows and *Calves*.—of very dull sale, and but few at Market.

Hay,—upon an average of the former week, viz., New Hay, 50 to 63; Old do. 63 to 75 cents per hundred. [Reported for the New-York Farmer by D. DREW.]

ART. CLXXX.—*Employment of Farmers' Daughters.* By the EDITOR.

At page 181 we published an article on the mortgaged Farms of New England, in which the writer stated the startling fact, that, even in some of the most flourishing towns, one half of the farms was mortgaged. He attributes the cause to the unproductive labor of the daughters of farmers, which is owing in a very considerable degree, to the laying aside the distaff and spinning wheel. He also states that the political equality existing in our country, fosters a pride among the daughters of our yeomanry that will not permit them to *go out to service*, and thus remedy the evil. This is a reflection upon the institutions of our country, and upon the views inculcated in the education of the great and respectable portion of the daughters of the land.

The writer is undoubtedly correct, in attributing one considerable cause of the embarassment of farmers to the unproductive labour of the female portion of their families; but he is very unhappy and errs egregiously, in pointing out the remedy. In the first place, if there was a disposition to go out to service, the avenue to such an employment is very narrow, especially when there exist a constant ingress into our country of so many foreign females whose education and capacity qualify them to obtain a livelihood in no other way. The writer could, with propriety, and in accordance with the manner of bringing up our daughters, have recommended to farmers who are embarassed, to dismiss their hired female domestics, and invite their daughters to perform the duties and save the expenses. A young lady must be deficient in sensibility, destitute of filial feeling, and have very erroneous views of the duties of life, who should hesitate to perform any labour to which her strength was equal, that would lessen the pecuniary difficulties of her parent. Independent of saving the wages of hired servants, there is a much greater one, in having the daughters to regulate and perform the domestic duties, the certainty of having them done, and done in the most economical manner. There is a great relief to a man financially embarassed, to know and feel that the various departments of his business is entrusted to those whose interest is that of his own. He is thus left free to lay plans and to prosecute them with much greater prospect of success. As long as a daughter is under the roof of an affectionate parent, her employment is not menial however laborious, and her respectability and virtue uninjured and irreproachable. A young lady in the country, who, by early rising and activity, can have four or five hours of the afternoon and evening for the improvement of her mind and the entertainment of her friends, is in a far more desirable and happy situation, than many young ladies in our cities who have all their wants provided for, and whose sole business is to dress and seek sources of entertainment. Instead of repining at that necessity for early rising and hard labor, she should rather consider it as provision made by a kind Providence for the security of her health, and the consequent cheerfulness of her disposition, and the buoyancy and elasticity of her mind.

It is natural for every person to wish to ameliorate his condition; and it is on this principle of our nature that we must lay down the rule appropriate to our present subject. No kind and indulgent parent expects his daughter to leave his roof, except she can sustain her respectability and improve her condition. This is in accordance to our system of education, and to the spirit of our political institutions. The education, therefore, of the daughters of farmers should be such, that when they can no longer find a comfortable asylum in their father's house, their acquirements should enable them to command employments that should rather add to, than diminish, their respectability. The fondness of a parent would desire this. We would not however, imply that a young lady should continue to be a tax to her parents, and suffer the inconvenience and distress arising from destitution of pecuniary resources, because she can obtain no employment exactly in accordance to her wishes. The necessities imposed by Providence should be resignedly submitted to, and some honest employment, however humble, should be considered a paramount duty. Men often rise from the lowest to the highest stations—and females, making the same exertions and exhibiting equally striking and characteristic virtues, will find that Providence has made many avenues to happiness, however rough some of them may be on first entering them.

The difficulties which farmers experience from the unproductive employment of their daughters, are chargeable to themselves. The general introduction of cotton goods, and the improvements in machinery for manufacture of woolen cloths, have rendered the spinning wheel a comparatively useless article. The foresight and enterprise of farmers should have led them to seek out some new sources of domestic industry. Silk culture offers a more general and profitable employment for females than the spinning of flax ever did. Let every farmer who has a rising family make immediate provision for the culture of the mulberry—Let him exert himself in seeking out other temporary sources of industry, rather than send his children to cities to learn the trades of dress making, where their virtue and respectability may be endangered and questioned.

Farmers, especially those whose property is mortgaged, should endeavor to make the employment of every member of the family produce more than the expenses attending each. A little foresight, and a little planning will, in most instances, enable him to accomplish this, without any hardships on his family. It is often the case that every female of a large family will be constantly buisy, and yet the labor of none of them add any thing to the common stock;—and what is still more improper, the number of hired female domestics will be in proportion to the female members of the family. This arises from deficiency of systematic arrangement—each one in the course of the day loses a great many little portions of time, for want of some one commanding object urging on to activity and industry. For instance, two or three daughters have acquired the habit of lying in the morning one hour later than is necessary, because they have but little to do before breakfast. The afternoon they will spend in the sitting room sewing, when one or more of them, had they risen earlier, might have obtained time sufficient to have fed some fifty or sixty thousand silk worms. Many a young lady has spent day after day in *extra superfluous* work on ruffles and vails *because she had nothing of a more urgent nature to do:* and perhaps, the father of this young lady, is annually

falling short in his income to an amount about what she could have earned had her attention been given to some object of consequence.

ART. CLXXXI.—*Plants from the Mediterranean.—Extracts from a letter from Commodore David Porter, U. S. Consul General, to the Barbary States, to John S. Skinner, Esq. dated,*

Mahon, June 8, 1831:

I am now packing up for Naples, to join brother-in-law, Dr. Heap, who is there with my sister, and dangerously ill. Thence I proceed to Constantinople, where I shall endeavor to get you a pair of "key hole cats," and perhaps some other strange things. I now send you some seeds of a nut-bearing pine tree. We have nothing of the kind in the United States. It is a beautiful and useful tree, and furnishes a luxury for the table. I shall have a parcel of the apples put up, and deliver them to Capt. Stevens, of the Ontario, who will be home in about a month after this reaches you. You can cultivate the tree as you would cultivate corn, only a *little* further apart. There are some beautiful groves of them near Algeziras, opposite Gibraltar, as well as in Italy. You may eat the nut raw or slightly roasted, and you will find it a real delicacy. The slight turpentine taste it has, is a refinement on luxury. I hope they may arrive safely. If Mrs. S. wants pretty ornaments for the tester of her bed, or her window-curtains, and for various other purposes, she has only to send the pine apples to the gilder, and he will return them more beautifully perfect than if they had been made by the hands of the best carver.

I shall try and send you a very simple mode of cultivating the silk worm, preparing the silk, and adapted, in the most simple form, to the use of families. I shall get it from a poor, plain Mahonese woman, who for her amusement, raises the worm, separates the silk from the cocoon, spins and manufactures, and sells it. She showed me several pounds of excellent sewing silk, of the remains of what she had last year. I shall send you a sample. You will be surprised at the simplicity of all the means of obtaining silk, and of the little trouble attending it.

This is written in haste, as the vessel sails immediately, this afternoon; but to-morrow, if I can possibly spare time, I will give my attention to the subject and be more particular. The cultivation of silk is not as troublesome as the cultivation of flax, and infinitely more certain and profitable. The simple mode, which I hope to be able to describe, will, I expect, induce our good housewives to give some attention to the subject and by a gradual introduction of its culture among us, save, in the end, millions of money, which finds its way to this side of the Atlantic. For silk is an indispensable article, and is one of the first necessity; as much so as tea and sugar. No man or woman can put on a coat, shawl, hat, glove, or dress himself, or herself, in any way without it.—*Amer. Farmer.*

[For the New York Farmer.]

ART. CLXXXII.—*Criticisms on the Reports of Horticultural Exhibitions.*

MR. EDITOR,—The Genesee Farmer of July 30th contains an article under the signature of "Q," which will, (it is to be hoped,) set all your Horticultural Societies right; a thing greatly to be desired. His criticisms on the improper spelling of Botanical names are very good, and should be attended to very carefully. I shall first notice some of his observations on the exhibitions before the Albany, New-York, and Rensselaer Societies. The Monroe Society is spared; perhaps the said Mr. "Q" in the corner knows all about that Society, and wishes charity to begin at home.—I agree, however, with the gentleman that every conductor of a Horticultural paper at least, should have a Catalogue at hand, to correct the errors of the press. To plead carelessness in this respect, is to treat the judgement of the public with contempt; here we are agreed; but some of his criticisms are too sceptical and harsh, and require a little examination; a few *errors* also may be found in them, which with all due humility, I submit to the notice of said Mr. "Q." There are circumstances attending Horticultural exhibitions (they are not Botanical Societies,) were it might appear rather pedantic to give scientific names to every thing presented. Suppose, for instance, A. B. presented before the Society, Strawberries, fine Gooseberries, and white Currants: also salmon Radishes &c, &c. Now if the Recording Secretary of said Society, in order to show forth his (book) learning, should turn to his "Horticultural Compends" "Floras" and "Catalogues", and minute for the Printer, as follows; A. B, presented before the Society, some fine *Fructus* of the *Fragaria Vesca, (var. hortensis,)* also of *Ribes grossularia*, and *Ribes rubrum, (var. album,)* also fine *Radices of Raphanus sativus (var. macrorhizus) &c. &c.* This would appear very absurd, if not ridiculous, every one knows the former names, but only a wise Q, here and there, could make out the latter; as all the Horticultural Societies are mostly made up (or at least they should be,) of plain practical cultivators, who know very little about these crabbed names, as they would call them, yet these very men are some of the most useful to the Society; and it would not be right to drive them with too much high learning.

With these few grains of allowances we might honestly suppose, that many of the articles which have puzzled our learned friend "Q." were common, well known plants; if not I suppose any of the Societies could have found some of the members able to give the Scientific Name. Let us suppose then, that members generally bring something from their Gardens to help make up an exhibition; the Recording Secretary feels it to be his duty to notice them in his minutes; and as every one will have his way, they may give some things improper names, and if it should so happen that the Rec. Secretary is not in his place, but some one else that knows nothing more than what is told him, enters the names right or wrong; I agree with our learned Critic that nothing of the kind should be printed without a careful revisal, and regret that many of the articles should be printed at all; but Horticultural Societies in this country are young; and they all wish to let folks know that they are not totally extinct. Mr. "Q." however, seems to suppose that every thing that is exhibited before a Horticultural Society must be something new. Here lies the mistake; a little reviewing of his criticism will show what I mean. He commences first on the Albany Horticultural Society. May 17. "Japan Ap-

ple" (*"Pyrus japonica"*) "is commonly called the Japan Quince;" if so, why did he not correct it by naming it *Cydonia japonica*, its proper name. The fact is, Japan Apple, *Pyrus japonica*, was the name it was first introduced by, and it is but latterly after producing fruit, that it has been found to be a Quince, and named *Cydonia japonica*. May 31. "Blue and white (Greek) Valerian", the word Greek probably left out by mistake. Every Gardener knows the Greek Valerian, as an old inhabitant of the flower Garden: but in the note at the bottom of the page he says "There is only another species, P. Mexicana," this however, is a mistake, *ten* species are enumerated in the London Catalogues.

1st. *Polemonium cæruleum*, with 2 varieties, *album* and *maculatum*. 2. *P. gracile*, 3. *P. Mexicanum*, 4. *P. reptans*, 5. *P. villosum*, 6. *P. Richardsoni*. 7. P. *humile*, 8. *P. sibericum*, 9. *P. pulcherrimum*, 10. P. *moschatum*. Those nnmbered, 4, 6, 7, 9, and 10. are natives of this country.

2. New York Horticultural Society, "June 7th.—"an Antirrhinum." Here the Critic is lost; he finds "forty species, amongst which we are left to guess". Any common Gardener would have guessed in a minute, that it was the garden Snapdragon (A. majus) of which there are several varieties of colours—an old and respectable inhabitant of the flower Garden.—"Double (Scarlet) Lychnis" no doubt was meant, the word Scarlet perhaps lost by the Printers' devil. This is an old and beautiful Perennial, that should be in every flower garden, and well known to gardeners. "Fox Glove," no doubt the common white and purple fox glove, and well known to Gardeners. Our critic winds up New York with, "But I am fatigued with such *indefinite articles*;" Really! what a fuss about the Bacon, says a Jew, when it happened to thunder while regaling himself with the unlawful article.

3. The Rensselaer County Horticultural Society. June 1st.; the correction of the Grammar here does well enough, also the wonderful double "Pheasant-eye Pink.*" which happens I suppose to be a carnation; the "1500 flowers," the Printer's Devil I suppose, very busy with the two cyphers put them in a wrong place. "*Fragrant* Double *Pink* Pæonias," I should suppose this description plain enough, and after all the queries of the Critic, it could be no other than the *Pæonia edulis (*formerly *albiflora) fragrans*.

5. Albany Society again; the correction of false spelling proper enough—"July 5. Queen of the meadows or meadow Sweet, must have been the *Spiræa ulmaria*; *Spiræa filipendula* is called drop wort not meadow Sweet, or Queen of the meadows." Here considerable trouble and vexation of spirit is expressed, because he cannot make out what every Cabbage Gardener could inform him in a minute, particularly if said Gardener should happen to be English or Scotch—"Japanese Daylily", the word (three) having got in the wrong place; I suppose it was written three kinds of Japanese day lilies, but I do not wonder at our learned Critic getting into trouble here; "I guess" the word Japanese, only suited one of the kinds; the sorts sent were probably, Hemerocallis flava, H. fulva, and H. cærulea. The latter kind only from Japan and was in flower about that time; the *Hemerocallis alba*, also from Japan is now just begining to flower. But here is more trouble, again; the names of these Japanese day lilies are no longer *Hemerocallis*, but *Funkia alba*, and F. *cærulea*—Again "Rose Potentilla" could not be "P. *atrosanguinea*," because the name denotes that kind to be dark crimson not *Rose colored*. "I guess" it might have been *Potentilla formosa*, which answers best to the description, "Rose (colored) *Potentilla*"—again," blue spiked Veronica", (off the hooks now,) "at this even conjecture is bewildered". "Do you give it up? Yes." Dont give up the ship. After all, it might have been nothing but the *Veronica spicata*, of the flower Garden, and a very common old inhabitant, and although there are several Veronicas with spiked flowers, yet this species is emphatically called "blue spiked Veronica;" the name might therefore have been found in any Flora, or Catalogue.

After these few remarks, our learned Critic I hope will continue his criticisms, bearing in mind at the time that Horticultural Societies are not *Classical Botanic Societies*, and so far from having all the officers to be Professors of Botany, it may sometimes happen that even the Recording Secretary may feel himself to be not quite a *Linnæus*. The principal thing to be attended to, is that when Scientific names are used they should be right in print, or never suffered to appear in them. Common well known articles of Fruit, or Vegetables may appear in their every day dress, but these names should be written correctly.

"I Guess."

New-York. August 17th. 1831

*The critic speaks of it as being 7½ *inches* in circumference. In the published report it was given as 7½ *feet*.—*Ed. N.-York Farmer.*

Art. CLXXXIII.—*Management of Fruit Trees.*

The peach trees I have annually topped down, say two thirds of the previous year's growth, and have found that this operation, invariably, had given increased strength to the stock, vigor to the lateral and and bearing branches, and protects the trees, in a great measure from the violence of the wind. At every time of trimming, I have given them a wash of soap diluted to the consistency of common paint, (and this has been repeated twice during the summer months) throughout the trunk and branches, the branches from the manner of pruning, being within reach of a short brush.

There has been in my neighborhood, this season, great complaints of a blight on the peach trees, with a shedding of the fruit. On all of mine (thus treated) *no blight has appeared*, and on those of them which blossomed, there is now a fair quantity of fruit. I can account for this difference in no other way, than by the *manner af pruning and frequent application of the soap wash.*

The tender shoots of some of my old, headed down peach trees, were soon after their appearance attacked by green lice, and pismires; I made the same application which effectually removed them.

The same has been done to my apple orchard (with the exception of topping,) and I am fully convinced, that nothing can be applied, which gives the bark so healthy an appearance, and so smooth a surface as the above treatment; the attack of the smallest insects in summer is prevented by the alkali contained in the soap, and the smoothness of the bark prevents the deposit of their eggs. Wm. P. Endicott. Danvers, Aug. 3, 1831.—*New England Farmer.*

ART. CLXXXIV.—*Wine and Cider.*

I found Andrew Haywood already at my house; and exactly at one we sat down to Dinah's neat, well dressed little dinner, and an excellent bottle or two of sparkling cider, made of the apples called Grey-house. My finances will not admit of my purchasing fine old Madeira, and the common wine is not half so wholesome as cider, so I do not buy it. Next summer I hope to make a barrel of currant wine, which is made so fine in our neighborhood, that we can very well dispense with imported wines. You would be very much surprised to see how great a change these Temperance Societies have effected in this country: why only three years ago, you could never enter the house of a farmer, or a villager, without his offering you something to drink; nay, he was stigmatized as mean, when he withheld it. The practice was here, and indeed at home, so universal, that it never struck us as disgusting. Ten years hence it will scarcely be believed that this custom ever prevailed.

Andrew Haywood said that there were more spirits drank in his father's house fifteen years ago, when he was a poor man, and had no son of age to assist in drinking them, than there is now with his large family, and with the addition of his numerous friends and acquaintances. Mr. North means to carry the reform still higher, by not permitting even cider to be drank in his house. He always, I find, refuses it: he considers that we are but deceiving ourselves when we leave off drinking one liquor, and continue with another.

Cider, unless it be of the very first quality, is unwholesome, and creates thirst—keeping the lower classes in the constant practice of running to the cider barrel; and the women of the family are no gainers by it, as all the mugs, pitchers, and tumblers, are in requisition, and are constantly to be cleaned. Besides cider is thought, by ignorant people, to be an innocent beverage: and in consequence, all the children and women partake of it. Women who, heretofore, when spirits were used at dinner, only drank water, have now become as fond of that stimulating liquor, cider, as their husbands.—*Our Neighborhood.*

[Although the following article was published in the *Plough Boy* eight or ten years ago, and a long controversy ensued, still we find many persons of much respectabilty, very positive that chess is the production of wheat. They say they have examined it closely, and *almost* detected it in the very act of turning into chess. In the hopes of leading farmers to more careful experiments, we continue the subject, and recommend the following to their attentive perusal.—*Ed.*]

ART. CLXXXV.—*Extract from an Address delivered before the Agricultural Society of Cayuga County.* By DAVID THOMAS.

"I should greatly regret that the quantities of *wheat* and *barley* cannot be so expeditiously and accurately determined, were it not that the *quality* rather than the *quantity* ought to be the criterion of merit. Although good crops are greatly dependent on the hand of industry, yet *wheat* and *barley* are less so than any others; and sometimes those appear so capricious, that were we regulated only by the *quantity*, we should adjudge our premium to the undeserving. There are other methods however, by which the careful farmer may be distinguished. The *cockle*, the *chess*, and various other weeds which pollute and impoverish the crop, will stand *witnesses* against the former class of cultivators; and *I earnestly recommend that no premium be adjudged to him who may permit either of those two nuisances to remain in his fields.* I trust there are not many who will think these conditions unreasonable. On a former occasion I called your attention to the subject of *cockle*. It was shewn that the seed will lie for years, if not for ages, in pasture land; and I suggested that our care ought chiefly to be extended to this plant before it attain maturity. The employment of *the rolling screen*, as a precautionary measure, may also prove important. But whatever means the farmer may adopt totally to extirpate this plant, he will be encouraged during its prosecution, by the conviction that *the perverted vigour of no other seed will reproduce it.*

"I wish for the credit of some farmers that they could feel the same confidence in destroying *chess*. The vulgar opinion respecting the origin of this plant is too well known to need a recital, but perhaps all of you do not know that some are indifferent about its mixing with seed wheat or seed rye, alledging that it is never produced by its own seed. When error of opinion results in a practice so preposterous, it is time to enter our protest. Perhaps we have all been told of the appearance of this plant in fields of grain where it was never sown; but *this seed is so small as to render its detection by a careless observer, improbable.* It is true that botanists have given us long lists of mule or hybrid plants; but chess has never had a place assigned in this catalogue. It is not even pretended by the advocate of this notion that the seed-wheat from which this monster is said to rise, was the offspring of vegetable adultery; they admit that the wheat may rise perfect from the ground, but after being injured by cattle, or in unfavourable situations, its nature becomes changed; and the stalk instead of being crowned with the golden grain, is only burdened with the shrivelled *chess.* Now, it would be safe to assert that nothing analagous to such transformation can be produced from the vegetable Kingdom. It may not be irrelevant however, to remark that *chess, though a weaker plant than wheat, is yet more hardy;* and accordingly, *where wheat is thick and flourishing, the chess droops among the stubble;* but, *where cattle or excessive moisture have injured the wheat, chess springs with renewed vigour and fills the vacancy.*

"But I am well aware of the inefficacy of reason in combatting inveterate prejudices which have been cherished from infancy; and to convince the believers of that doctrine that it is founded in mistake, and unworthy of enlightened minds, I shall refer to facts that admit not of contradiction. *The chess is a perfect plant*, as different from wheat, as the latter is from rye, or barley,—with seed completely capable of vegetating, and known in science by the name of *Bromus secalinus.* The botanist,—who examines things with incomparable more care than the assertors of this doctrine,—would no sooner admit this plant to be a degeneracy of Nature, because it grows in our wheat fields,— than the Zoologist would admit the sheep to be the degenerate offspring of the Cow, because it feeds in the same pasture.

"I shall mention another circumstance which to

some may appear still more conclusive. *A farmer who lives in the vicinity of Philidelphia, and whose veracity I have known by long intercourse to be unimpeachable, lately assured me that for many years not one stalk of chess had appeared in his grain fields.*"

[The 2d number of the Monthly Journal of Geology, from which we take the following article, has come to hand. It is conducted by G. W. Featherstonhaugh, Esq. at Philadelphia.]

ART. CLXXXVI.—*Experiment on the Colour of Flowers.*

If the lobelia fulgens, which is of pure blood-red, is viewed by the light of an alcohol lamp, with a little salt added to the wick,—it becomes absolute black, which is not the case when observed by solar or chemical light. The scarlet geranium too, naturally reflects a compound of red and yellow, but when seen by the spirit lamp, with salt, appears yellow. Purple colors under like circumstances appear blue. If a candle is put on one side of the lobelia, and a spirit lamp on the other, one half appears black, and the other, red. The explanation of this beautiful experiment is suggested by the study of the nature of reflecting bodies, and of light. Coloured bodies are so formed, as to reflect rays and combinations of rays, peculiar to them in their natural state. Hence, red flowers reflect the red ray which they obtain from light. But the light of a spirit lamp gives out—as may be proved by a prism—no red ray, and hence the lobelia, when observed by this light, has no red ray to reflect, and appears black. The geranium receives no red ray, and appears yellow. The purple receives no red ray, appears blue. Those unacquainted with the properties of bodies and of light, are generally contented to believe that the natural colour of an object belongs to it inherently, as much as its form does. But this is not so. Whatever the reflecting structure of bodies may ultimately depend upon, they must be in connection with light before they can reflect; and as it is remarked, in a work that will perhaps bear reading oftner than any other that modern times have produced, "Preliminary Discourse on the study of Natural Philosophy, by John Frederick William Herschell," &c. &c. when the differently coloured prismatic rays are thrown, in a dark room, in succession, upon any object, whatever be the colour, we are in the habit of calling its own, it will appear of the particular hue of the light which falls upon it. A yellow paper, for instance, will appear scarlet when illuminated by red rays, yellow when by yellow, green by green, and blue by blue rays; its own (so called) proper colour *not in the least degree mixing with that it so exhibits.*"

Perhaps at some future day, light may be so managed, as to admit of bodies reflecting particular colours, without adding the expense of dying or painting them.

EDITOR.

[At the request of a subscriber we insert the following beautiful effusion, from the pen of Gen. Dearborn, published in the N. E. Farmer.]

ART. CLXXXVII.—*Flowers.*

In all ages and countries, flowers have been universally cherished and admired as the ornament and the delight of the vegetable, as are their prototypes, of all the animal kingdom. The fondest titles, the most ardent expressions of attachment, and the lovely qualities of each, have been reciprocally bestowed upon the pre-eminent of both realms. The Rose of Sharon, the Violet and Lilly of the Valley, have become the consecrated emblems of female excellence: while the refined and endearing attributes of woman, furnish the names or give distinction, to those interesting favorites who throng the brilliant court of Flora.

We may ask in the eloquent language of the enthusiastic Boursault—"Who does not love flowers?—They embellish our gardens; they give a more brilliant lustre to our festivals; they are the interpreters of our affections for our relatives and friends; they are the testimonials of our gratitude; we present them to those to whom we are under obligations; they are often necessary to the pomp of our religious ceremonies, and they serve to associate and mingle their perfumes with the purity of our prayers, and the homage which we address to the Almighty.—Happy are those who love them and cultivate them."

The ancients paid particular attention to the culture of flowers. They were in great request at the entertainments of the wealthy, for adorning the apartments, as well as the participants of the feast; they were scattered before the triumphal chariots of victorious generals; they were placed upon the tombs of the illustrious and beloved, to perpetuate the pleasing, yet mournful reminiscences of their virtues; they formed the distinguishing insignia of many of the divinities of mythology; they glitter as genius in the diadems of the seasons, and constitute the mystical language of of poetry.

We are informed that Descartes prosecuted, with equal ardor, astronomy and the culture of flowers, and often retired from his celestial observations to study the sleep and floration of his plants, before the rising of the sun. The great Conde, returning from the dangers and glories of the battle-field, devoted his leisure hours to the cultivation of his flower garden; and so enamoured was Lord Bacon with these silent, yet eloquent and soothing companions, that the vase of flowers was daily renewed upon his table, while composing the volume of his sublime philosophy.

ART. CLXXXVIII. *Proceedings of the New York Horticultural Society.* [Continued from page 189]

August 9.—Mr. Hogg exhibited a large and beautiful boquet of Flowers—a new seedling purple Dahlia, Hibiscus palustris, Lonicera Frazerii, ? Houstonia, Antirrhinum majus bicolor, Asclepias curassavica, Heliotropium corymbosum, Nerium oleander splendens.

Mr Hyslop, gardener to N. Prime, Esq. six very fine free stone Peaches, two excellent Musk Melons, and one Water Melon weighing 39lbs 2oz.

Mr Floy presented in pot Princess Alexandrina Victoria (a dwarf Dahlia.)

Mr. Henry Mackin, gardener to D. B. Perkins Esq. of Flushing, two Bergen cabbages, weighing 19¾ and 14¾ lbs, and 6 blood beets, 15lbs 2oz.

Mr. John F. L. Duflon, nine ripe Figs, 6½ inches in

circumference, raised in the open ground at the Military Garden, Brooklyn.

A bunch of well blanched Celery 2 feet nine inches long, taken from the garden of Alex. Walsh of Lansingburgh, July 29.

[For the New-York Farmer.]

ART. CLXXXIX.—*The New Swallow—Hirundo fulva.* By D. T.

The *Hirundo fulva* (new Swallow) is not mentioned by Wilson, and for its description I have to refer to Bonaparte's Ornithology. It is a very remarkable bird. It was said to have been first discovered in the country beyond the Mississippi; but within a few years, it has increased so much as to appear in many of the old settled parts of the United States. At least ten years ago, a colony had fixed their summer residence near the Champlain Canal, a few miles south of White hall, and within two or three years, they have built near the Cayuga Lake a road about a mile south of Union Spring village. I had pointed out these birds to the writer of the following paragraphs, who to some other interesting particulars has added several new localities. D. T.

"I returned through Homer, Binghamton, and the Great Bend. At Leach's, 8 miles south of the last place, I had the pleasure of viewing a colony of *social swallows** which have been there *undisturbed* for the last three seasons. They are more numerous than the colony near Union Springs. They have built their nests under the *south* eaves of a low barn that stands rather within the road; and a nest had been built under the *north* eaves of a shed on the opposite side of the road the day before I arrived [6 mo. 7.] At Harford five miles from Leach's I saw another colony.—The nests were under the *west* eaves next to the road; and as those near Union Springs were under the *east* eaves, I have now seen them facing the four cardinal points. These swallows invariably occupy *the most public side of all these buildings.*

"A. Leach thinks he has been amply rewarded for extending his protection against wanton boys; for previously *the flies* had been very troublesome, but *these insects nearly disappeared from his premises, in door and out, soon after the arrival of the swallows.*

"The colony at Leach's appear to have made some advances toward *domestication*, for my presence scarcely disturbed them, although as I sat on horseback I could nearly reach their nests." D. L.

* Near Stroudsburg (Pa.) they have been called *patent swallows* from the very singular construction of their nests.

[For the New-York Farmer.]

ART. CXC.—*Market for Cocoons—Cultivation of the Mulberry in Connecticut.*

DEAR SIR,—I have received a letter, dated, Stoney Batter P. O. [South Carolina] from James Kilgore, saying that he has raised this season sixty pounds of silk in the cocoons, and asking for information how he can dispose of it, and at what price.

Not being able to give him the desired information, I have thought proper to communicate his inquiries to you, not doubting that, if in your power you will put me in possession of the facts that I may convey them to Mr. Kilgore; feeling a deep interest in the request of Mr. Kilgore's Letter, and believing that every facility ought to be afforded to the efforts of those who are pioneering in the introduction of the culture of the mulberry tree, and the production of silk in this country, I am desirous to satisfy the inquiries of the writer of the letter to me, considering his exertions creditable to him, and the success of them, one among many evidences, of the progress which is making in different sections of our country, of the successful production of silk, which, we are already encouraged to hope, in half a century, will become one of the staple interests of our agriculture.

In this state, where the business has been carried on in a small way in a few towns, for many years, a new and enlarged impulse has been given to it, by the publications and statements of Duponceau and D'Homergue. Several persons in this country have planted mulberry orchards on a large scale the season past. The subject is one of increasing interest and is highly deserving of attention every where, but more particularly in those states (of which Connecticut is one,) where the lands are divided and subdivided by the laws of descent and increasing population, into *small farms*, which to afford the means of supporting a family in the manner the times seem to require, demand a mode of cultivation different from that which has heretofore prevailed, and which still is suitable for the Western states, where land is not only cheap, and the soil very rich, but is divided into large Farms and Plantations.

The great error among our farmers is, they seem to think, that they must pursue the same course of cultivation that their fathers did fifty or a hundred years ago; not considering the effect which two centuries of improvement have produced on our lands, nor that since the shortest period referred to millions of acres of the richest land in the west, surpassing in fertility the best of our own lands when the country was first settled, have been opened to cultivation, and with modern improvements enjoy nearly the advantages as to market as the lands in any part of New England. Under such disadvantages, it can hardly be expected that our farmers can sustain a competition with those of the West in raising grain &c. The object is to introduce such a system of culture, or such additional pursuits in farming, as shall at the same time afford enlarged scope for industry and increased productiveness or profits from lands. This alone can save the class of smaller farmers from destruction. Of all interests connected with the soil, the growth of silk is probably best calculated to answer this purpose.

With the intention only of communicating a single fact, with an accompaning request, I find I have written you a long letter, which I beg you to excuse.

I am respectfully, yours

Hartford, Ct. Augt. 13, 1831. J. M. NILES.

REMARKS.—We are constantly receiving inquiries on a market for cocoons. At present we can only refer to the 1st page of advertisements. We hope some of our readers will favor us with information of a market, and the machine for winding the silk from the cocoons. In a short time we may be enabled to give some information of a market in this City.—*Ed.*

[Although we have frequently inserted in our columns, articles urging upon farmers the importance of the silk husbandry, still we deem it advisable to occupy an additional space. The following we abridge from a long and interesting letter of Judge Bradley, of Marcellus, Onondaga County, to Mr. Isaac Cady, dated January 7th, 1831.]

ART. CXCI.—*Importance and Profitableness of Silk Culture.*

In Europe as we are told, it takes 12 pounds of cocoons to make one of raw silk. It is found that in America 8 pounds of cocoons will make one of raw silk. It will be seen here is the difference of one third in favor of American silk. For these and many other interesting facts, we are indebted to the experiments of Mr. D' Homergue, a distinguished silk manufacturer from France, now operating at Philadelphia. You see, sir, that in relation to the culture of silk I derive no uneasiness from considerations of market.—I have no fear that in my day or my children's day, enough of this article will be produced to glut the markets and despress its value.

You inquire which would be most likely to find a ready market the raw material or silk thread? I have no donbt, that silk prepared in either of these forms, might be readily marketed. So far as I know, it has hitherto been the general practice at the small establishments (for there have been but few that were not small) to work the material into silk thread and for this it does not appear that there has been any difficulty in finding good markets. It is known, however, that considerable quantities of American silk have been wrought into divers fabrics, such as stockings, ribbands, vest patterns, &c. But to those who are about to undertake the culture of silk, it is of little consequence to know what may be in its present incipient state, the best mode of preparing the article. The practices now prevailing must not be expected to continue.—Wherever the culture of silk becomes general in this country, as in few years it doubtless will, it will be prepared and marketed in all manner of forms. It is reasonable to conjecture, that many of those who shall conduct the business on a small scale will choose to dispose of their produce in the form of cocoons.—These will always find good cash markets at home; for there will be filiatures, or reeling establishments, in all parts of the country, where the culture of silk shall prevail.

Others who shall be engaged in the business on a more extended scale, will perform the reeling process, and whatever more may need to be done to prepare their produce for market as an article of raw silk.—We know enough of the enterprize and skill of our citizens to be sure that whenever the culture of silk shall prevail to any considerable extent the article will be wrought into all the forms of manufacture which use or fancy may require.

You inquire, whether I have Mulberry trees of suitable size for setting, and what will be their prices? I have a mulberry nursery, supposed to contain about ten thousand trees. The trees have now had the growth of two seasons. They are very thrifty. Many of them are 5 feet high, some 6 feet, but on an average they are perhaps, not more than 4 feet high.—To bring them to a size generally thought suitable for setting in an orchard, the growth of another season will be necessary. Yet they will do very well to set next spring. I am hardly prepared to answer that part of your inquiry which relates to price. It is my intention, however, to sell at moderate prices, and if some of my trees should be called for next spring, I think the price, if they are taken on an average, will not exceed $4 a hundred—it may be put at something less.

Your last inquiry is, whether I have the eggs of silk worms, or can inform you where they can be obtained? I have a few thousand of eggs, which were lately given by a lady in this vicinity, who has for several years conducted a small silk establishment. With these I intend to commence experiments next spring. After that, if successful in my experiments, I may be able to supply any quantity of eggs that may be wanted. I do not know where any considerable quantity can now be obtained, otherwise than by sending to a distance. Silk worms being once obtained, their propagation will be easy, for it is estimated that one miller will lay about 300 eggs.

The question, can the culture of silk be made a profitable business in this country? recurs and seems to require a more detailed answer. I submit the following considerations; they all have an auspicious bearing upon the question, but the first is entitled to supreme regard.

1st. It is obvious that something like the culture of silk, (and we know of nothing that can be its substitute,) is extremely needed to supply the means of industry to the children and youth of our country, especially of the female sex. We all see and doubtless deplore the fact, that this portion of community is, in a great measure thrown out of business. I need not stop to inquire the causes that have produced this state of things. They are obvious. It is enough for my present purpose to know the existing facts. What, Sir, shall be done, that employment may be found for our youth? To train them up in habits of indolence will contravene all the sound maxims of morality, and political economy. And besides, a large majority of families absolutely need the available industry of their children.—The culture of silk, if generally introduced, would happily supply the desideratum.

2d. It being ascertained that the mulberry tree grows well in our soil, and that our climate is congenial with the silk worm, it seems reasonable to conclude, that silk may be produced in this country to as good profit as in any other.—We are assured that, in countries where its culture prevails, it brings far greater profits, than are derived from any other branches of industry;—that even in Italy, a country of fine soil, capable of producing the choicest fruits of the earth, the produce of silk is of twice the value of all the other products of agriculture put together. Mr. D'Homergue, whose name I have mentioned, tells us, that Count Dandolo, a nobleman of Italy, does not hesitate to affirm, that there is no production of the earth in the markets of Europe, which, compared to its natural value of prime cost, offers to the producer a greater neat profit than the article of silk.

3d. It requires little effort, little skill, and little capital, to commence and carry on the culture of silk. Any man who can avail himself of one acre of ground for the growth of mulberry trees, may go into this business, and pursue it on a scale sufficiently large to make him rich.

[To be continued.]

ART. CXCII.—*Flies.* By S. F.

One of the blessings of the shorter summers of the temperate and higher latitudes is, that *activity* and *industry*—very important auxiliaries to our happiness,—are necessary to insure crops. Insects, too, notwithstanding, all the inconvenience they occassion, may be regarded as a blessing in disguise—one of the means designed by Providence to make us active. In southern latitudes, where the productions of the earth can be obtained with comparatively a very little exertion, it is easy to perceive that without the labour necessary to guard against insects, inactivity and sluggishness would settle down like an incubus upon man. The injury which insects cause to our crops and furniture, and inconvenience to our persons should be considered as a part of that *judicious tarif* imposed by Providence to encourage ingenuity and domestic economy. Instead then, of murmuring at the *duties* imposed, every exertion should be made at contrivance and invention to guard against their effects, and to promote our comfort. It augurs very unfavorably for the skill of our countrywomen that no progress has been made in the means of destroying house flies, fleas, and bed bugs. Go where you will, to city or country, you are liable to have your patience exhausted and your blood profusely shed, to support a system of domestic regulations that were designed to favor the ingenuity and elecit the inventive powers of the ladies. In every age *man* is making some discovery that very materially ameliorates the condition of the human race. But alas! what has *woman* done? Egyptian plagues inflicted for ages have not yet aroused her inventive faculties! In order to give the ladies an idea of the probable increase of bed chamber insects, and to show the importance of exertions and inventions to extirpate them, the writer would direct their attention to the *Fecundity of Flies.*—M. Von Cleichen, a German naturalist, has made the following calculation.

A fly lays four times during summer, each time 80 eggs, which makes . . .	320
Half of these are supposed to be females, so that each of the four broods produces 40.	
1. First eighth, or the 40 females of the first brood also lay four times in the course of the summer, which makes . . .	12,800
The first eighth of these, or 1,600 females, three times	384,000
The second eighth, twice	256,000
The third and fourth eighth, at least once each	256,000
2. The second eighth, or the 40 females of the second brood, lay three times, the produce of which is	9,600
One-sixth of these, or 1,600 females, three times	384,000
The second sixth, twice	256,000
The third sixth, once	128,000
3. The third eighth, or the 40 females, of the third brood, lay twice, and produce .	6,400
One fourth of these, or 1,600 females, lay twice more	256,000
4. The fourth eighth, or 40 females of the fourth brood, once	3,200
Half of these, or 1,600 females, at least once	128,000
Total produce of a single fly in one summer	2,208,420

To destroy Flies. The writer has seen the following plan adopted.—Put sugar, honey, or molasses in a plate of water, and into this put arsenic (rats bane,) set the plate in the part of the room most frequented by the flies. A few sips will kill them. If the room is darkend, leaving a small opening for the light, near which place the plate, they will be more effectually destroyed. The objection to this method of killing them is, that they die in all parts of the room.—If the ladies however, can take a hint from this to free our domicils from the disturbers of nightly repose, the object of the writer will be obtained.

ART. CXCIII.—*Concentrated Liquor of Milk.*

M. Braconnot, a French chemist, informs us, that he has discovered the means of preserving milk for any length of time, and with an improvement in its flavor. His object was to separate a salt (the acetate of potass) and a peculiar extractive matter from the milk, so as to retain the caseous portion, and butter, on which its taste and properties more peculiarly depend. M. Braconnot performed his experiment in the following manner: he took two pints and a half of milk, and exposed it to a heat of about 113 degrees of Fahrenheit; to this he added, at different times, diluted hydrochloric (muriatic) acid, or spirit of sea salt, as it is sometimes called, which produced a separation of the butyraceous and caseous parts from the serous portion, or the whey. With this kind of curd thus obtained he mixed about seventy-five grains, or a dram and a quarter, of the crystallized sub-carbonate of soda, in the form of powder, which, after a time, by the aid of mild heat, was completely dissolved.—The solution had about the same degree of acidity, tested chemically, as new milk, and furnished about half a pint of a kind of cream, or rather cheese cake, which may be made extremely useful in domestic economy, in the preparation of a great many dishes, both various and delicate in flavor.

If to this cream, or cheese cake, water be added, equal in quantity to that of the whey at first separated from it, and a little sugar, we shall have a perfectly homogenous liquor, like milk,—but of a much more agreeable flavor.

An excellent syrup of milk may be obtained by heating the cream, prepared as above, with its weight of sugar; diluted with a sufficiency of water, it forms a white opake liquor, precisely like sugared milk, but of a very superior flavor, and which would be a wholesome food for invalids and convalescents. It might if necessary, be flavored with some mild and pleasant aromatic.

This syrup of milk, somewhat reduced by exposing it to a mild heat while it is incessantly stirred, and care being taken not to carry the evaporation too far, for fear of butter being formed, was converted into a soft confection, or preserve, which, left for upwards of a year in a jar imperfectly closed, was preserved without undergoing the slightest change.

Dissolved in boiling water, this confection, when added to coffee, gave it a much better flavor than would have been obtained by the freshest and richest milk.

The advantages of this discovery must at once appear evident to our readers. In sea voyages it will be found peculiarly valuable, and many an invalid and epicure, while sipping his tea or coffee, well supplied with the syrup of milk, will utter a grateful exclamation for M. Braconnot.—*Journal of Health.*

ART. CXCIV.—*Extract from an Address, delivered before the Berkshire Agricultural Society, October 7, 1830.* By THEODORE SEDGWICK, President of the Society. [Continued from page 188.]

Men, women and children, pining with want, are every day thrown upon our shores, from that unhappy portion of the world. Can these phenomena be accounted for? One assigns as a cause, the incurable depravity, ignorance and folly of man. Another, bad Laws, bad Government, bad Religion, wars, and commotions. Neither is absolutely wrong, but still, something remains to be explained. For how is it, that in all countries, even in those that are peaceful, quiet, and well governed, there is still an absolute deficiency of good food, and drink, and of those comforts so essential to man? This is true too, to some extent, even in this young, thinly occupied, and abundant country. The difficulty of explanation becomes still greater, when we know, that the earth is not cultivated up to the tenth, or twentieth, or hundredth part of its capacity—perhaps in no country, certainly not in most.

Without pursuing the enquiry any farther in this way, the true practical view of it may be made plain. Why, for instance, are there such frequent famines in Ireland? Because, a man says to himself, if I can hire land enough to procure potatoes, and few other necessaries, I shall have a provision for wife and offspring. He marries: then comes a bad season: what resource has he? He relied upon the lowest food known to civilized man; he cannot therefore afford to buy wheat, corn, or rice; nor has he made the least provision for what we call comfort, or for accidents or diseases. In this state of things he perishes with want, and disease its common attendant. In what then does the mischief lie? *It is in this; that the labouring part of the world consent to work for a poor subsistence.* That is, *poor* food, drink, lodging and clothing. These are obtained by the *price* of their labour, and will of course be good if that price be high, as in the United States, or poor, if that price be low, as in Ireland. Labour is like to other marketable articles, high, or low, in great demand, or in poor demand, according as the market is overstocked, or understocked. Any man can see, that if half the labourers in England were to die this night, there would to-morrow, be a greatly increased demand for labour, and of course, a better price for it. So on the other hand, as it is capital, property, or in other words, ships, cultivated land, manufactories, &c. that employ men—if these should be greatly increased this night, in England, to-morrow there would be more labourers wanted, or these things would stand still, and go to waste. No body therefore pretends, that there may not be more people well provided for in every country, that is, if the property increases in due proportion. To what conclusion, then, are we brought? It is, that labourers, in some countries, multiply their class too much, and may do so in all. That is, they multiply labour too much; they cheapen it; they cause it to be in little demand, as in China, Ireland, England, France. Then follow all the evils of an overgrown population. What, therefore, is the security of the *American* labourer? It is to be governed by that law of prudence, which, in one way or other, God has established for all men; so that none shall incur the burthen of offspring, without a reasonable hope of a decent and respectable provision for them. And how is this provision to be obtained? It is by selling his labour *dear*, which we have seen can be done; wherewith to buy good food, clothes, and various comforts which life demands, and which are to be considered indispensable. To attain to this, a man must live up to the dignity of his nature: he must revolt from charity, debt, and degradation; he must never descend to that loathsome filth and poverty, in which he becomes an object of disgust and horror. Such should be the instruction, and education of all men.

Does the fault then lie in nature, or in man? Can Providence be charged with unkindness, as long as the earth may be made to yield a hundred fold beyond its present products, or shall we impute the miseries we have been contemplating, to the folly, ignorance, rashness, and ungovernable passions of man?

The interests that we are to discuss to day belong directly to him whose bread is earned by the sweat of his brow—who cannot prosper, unless he be a man of order, of economy, careful, diligent and obedient to that simple and pure taste, those sound morals, which are his only protection. His great aim in his worldly affairs is, to be independent; to gather about him the comforts of life; to be free from debt and embarrassment; for to him, debt and slavery are nearly alike; to have such a command over his desires and appetites, that his substance shall never be wasted. To this end, he should appreciate justly the value of property; know its uses; and understand perfectly, the principles by which it is gained, and lost. Nothing, therefore, is to be said or preached to him, to give his mind a sickly, or dissatisfied cast, in regard to those objects. It is not against the acquistion of property, but the abuse of it, that he is to be warned. He is to be taught all the wise and benevolent uses to which it may be applied. As to its intrinsic value, the Supreme Teacher of our duties has left us in no doubt; for he has given us those instincts and passion; that love of occupation; that desire for individual possession; he has suffered us to be so restless, unsatisfied and miserable when idle, that our duties are plain. To debate about the value of property, is to go back to the old question of the comparative advantage of civilization and barbarism. The savage is the only man whose mind is limited to his present condition. As to the rest of mankind in every Nation, State, City, Village, there is one common, perpetual struggle for acquisition. What is it, then, for a people to advance in the scale of existence, and to acquire *property*, but to witness what appears upon this Anniversary; this day of Honour and Jubilee, to the Artizan and Husbandman; this happy day, which has gathered together, men, women and children, to congratulate each other, that temperance is growing; that industry is increasing; that the arts are improving; that our agriculture, in a single generation has doubled some of its most important products upon the same territory. And what is acquisition, property, wealth; where is it to be found, but in things like these now brought together for exhibition? Those admirable domestic animals, which transport us abroad for agreeable recreation, which furnish our food, and clothes—those substantial fabrics of the manufactory, and the household, which are desirable, as a decent decoration of the person, and to protect us against

the inclemencies of the season. This is property. It is in these things, or those of a like kind, that Canals, Roads, Land, Ships, result.—This is the final end and aim of the most of man's sublunary exertions. That is to obtain and to make such a use of them as reason and religion demand. *Our* enquiries extend to both. Political economy is not the science of quacks, and pretenders, but worthy of the study of American people, and to be commended to every youth who desires to be a useful citizen. It is common to hear it said, that there is nothing in Political Economy, but what common sense teaches. This is true enough— nor is there in law, politics, or morals, any thing but what common sense teaches. or should teach.

ART. CXCV.—*Miscellaneous, Original and Selected.*

New-York Cattle Market, Monday, August 8.—Our Market was but thinly supplied this week, not more than 400 head of cattle, consequently the trade was very brisk at from $6 to $7 per hundred.

Sheep, Lambs, or *Swine,*— not any at market this day.

Cows and *Calves* but few, and those dull of sale.

Hay and *Straw*, at the prices of last Monday.—[Reported for the New- York Farmer by D. DREW.]

New-York Cattle Market, Monday, August 15.—Our Cattle Market was very well supplied this week, and a tolerably brisk sale of $6 per hundred on the average.

About 30 extra prime Cattle from *Dutchess and Orange Counties* reached $6¾ per hundred.

Sheep and *Lambs* a good supply—sales average about $2 per head.

Cows and *Calves* very dull of sale and but few at Market.

Swine, not any from the heat of the weather.

Hay—not very much at market, and what is good, selling from 5 to 6 shillings. Middling hay from 4 to 5 shillings per hundred, and the trade very brisk. [Reported for the New-York Farmer by DANIEL DREW.]

☞In the New-York Market only the quarters of Beef are weighed, the hide and rough tallow being included without weighing. At Brighton, the hide and tallow are weighed as well as the quarters.

Early Grapes.—Mr. FLEET, My earliest grapes are beginning to ripen. I shall probably have 8 or 10 bushels—wish I could send you a bushel of them. Indeed I wish I could send them all to your market, where they would probably be among the very earliest. Have you any idea of the price in your market? They are a purple grape, smaller than the purple Hamburgh and Isabella, juicy, but rather more tart till shrivelled with age in maturity. For jelly and preserves, my wife, who by the by is no mean judge in such matters, prefers them to every other in the garden.

REMARKS.—We read the above description to a constant and old attendant of Fulton Market, who thinks the price will not exceed six cents per pound. If they are sent in good order, we think they will bring more. Mr Loubat obtained from 15 to 20 cts. per pound for some of his, last season. Ed.

Paintings of Cattle—There are now exhibiting at the Bath buildings, in Chamber street, beautiful and splendid paintings of cattle, horses, and rural scenery. They have been very recently brought across the Atlantic, and are principally the productions of the celebrated cattle painter, James Ward Esq.

This highly esteemed artist is well known in Europe, as the most eminent in powerful and effective coloring, and correct design; combining a strength and vigor in his pencil, no one has surpassed. His pictures of that noble and beautiful animal, the Horse, are unrivalled.

No one has studied this subject, with so much success—there is a vigor, strength, and character in his Animals, approaching nearer to nature, than could be imagined possible; they form a perfect study for the anatomist.

But in the great Cattle Picture it will be allowed that Mr Ward has out done all his former efforts.

As a work of Art—No Picture in the World ranks higher, to the force and brilliancy of color, is added the most delicate and elaborate finish, with a correctness of design, and fidelity to nature, approaching to illusion.

The effect is so powerful, unless seen, it cannot be imagined, and at some distance, it appears impossible the surface can be flat.

" Group'd with effect, the imitated show,
" With force it strikes, with animation glow;
" So touch'd by energy, in every part,
" The finished figures, from the canvas start;
" Nature, and only nature, can inspire,
" Strength freedom, taste; the fancy and the fire."

It has been justly said, of Mr. Ward, that had he painted but this one grand picture, his fame would have been recorded forever! as the similar subject, by *Paul Potter* did his, which for near two centuries, has been highly esteemed in Europe— and in Holland, his native country, with great national pride."

To prevent Mildew on Grapes.—In the Genesee Farmer, D T.—states that he loosened some of his vines from the trellis, and let part of them lie on the ground, so that many of the bunches had the soil dashed over them in heavy rains. *Not one of these bunches has any appearance of mildew.* Perhaps the soil moistened with water, and sprinkled over them, will answer without taking them from the trellis.

Peach Dumplings.—It is very common to see apple dumplings on the table during the autumn months, but rarely those made of peaches. Peal the the peach and enclose it whole, and boil them.

The seat of Taste.—By covering the tongue with parchment, sometimes in whole, and sometimes in different parts, it has been determined by two experiments in Paris, M. M. Guoyt and Admyraula, that the end, sides of the tongue, and a small space at the root of it together with a small surface at the interior and superior part of the roof of the palate, are the only portions of surface, in the cavity of the mouth and throat, that can distinguish taste and sipidity from mere touch. A portion of extract of aloes, placed in any other part gives no sensation but that of touch, until the saliva carries a solution of the sapid matters to those parts of the cavity.

Barley.—The great secret of harvesting this crop properly, is to *cut it, not when too green, but before it is fully ripe,* and your barley will come out a bright yellow color when it is thrashed. It should be well

dried before it goes into the barn, else the fermentation will be so great in the mow as to injure the life of the grain. If there be any patches in your field which are lodged, the grain which comes from them will do well for your pigs; but as you hope to obtain the first price in market, do not mix it with your standing barley; cut and keep it separately. There is no doubt that barley allowed to stand in the field until it gets fully ripe (if it can be harvested,) without receiving any dampness, malts more freely than when cut earlier; but in our climate, this is extremely difficult, and if it does get wet the damage is so fatal that as a general rule, it is best to harvest it before it is fully ripe, when a little wet wheather will not effect it, and the only precaution necessary to be taken, is to have it perfectly dried before it goes into the barn.—*Genesee Farmer.*

Ginger Beer.—An English lady, after giving us a drink of very fine beer, has furnished us with the following receipt. One lemon sliced, 2oz. of ginger, 2oz. of Cream Tartar, and one and a half lbs. of Lump Sugar—Pour on the above 8 quarts of boiling water, and let it remain until cool—then strain it, and add 4 table spoons full of yeast, and bottle immediately. In ten or twelve hours, it will be found one of the most pleasant drinks.

Vegetable Phenomenon.—Yesterday Doctor Edw' J. Cox presented us with a lemon, which grew at the country residence of Lewis Clapier, Esq. On opening the lemon longitudinally, it was discovered, that almost every seed had germinated, and from two or three, roots had shot down, and branches risen upwards, with perfect leaves, making miniature lemon trees within the lemon. Not only was the shape of these entirely developed, but trunk, branches and leaves were of the rich green *color* that belongs to the lemon tree in its usual state. Different seeds presented various stages of progress. In some, the "sprouts" were just breaking from the shell, in others, the leaf was out, and in all the color was perfect. We are not sufficiently conversant with the history of vegetation to know, whether such a propensity to germinate has been frequently observed in the lemon—we believe an instance occurred some years since, in professor Cox's garden, and perhaps the present notice will elicit proofs of the frequent occurrence of what now appears *vegetable phenomenon.* It may be proper to state, the lemons are from last years blossoms. —*U. S. Gazette.*

Turnip Rooted Cabbage,—(*Kohl Rab*)—This is another excellent new vegetable, or rather one which is scarcely known to the public. It seems to be a hybrid between the cabbage and turnip, partaking somewhat of the character of each. It is in high esteem with the Germans, from whom it has been obtained. The plants are raised and transplanted in the manner of cabbages, a close resemblance to which it bears until about the time we should expect it to head, when a turnip begins to form at the top of the root, and rapidly increases to the size of a large turnip, when it is fit for use. It is cooked in the same way as turnips, either in soups or boiled as a common vegetable. It is extremely hard, and brittle—hence the name of *glass* kohl rab,—and requires to be boiled double the length of time that turnips require. The flavor is very much that of the *heart* of the cabbage stalk inside the head. The Editor of the Farmer has three kinds in his garden, the purple glass and the green glass kohl rab. It is really worthy of universal cultivation.—*Amer. Farmer.*

A Mode of destroying the Red Spider on plants. —Sir, as you are very desirous that all gardeners should not only be reading but writing gardeners, I, for the first time (being very young), venture to take up my pen to write a few lines, and shall be very happy should you think them worthy of insertion. The subject on which I now write is the red spider, which is very common on certain stove, green-house, and, in dry seasons, certain hardy plants. I have heard and read many receipts for the destruction of this insect, but I never found a more powerful remedy than clear water. I have under my care a few stove plants, which are in general in a very healthy state. I syringe them every morning with clear water on both sides of the leaf, and the plants are not in the least affected by this destructive insect. I had for instance a species of Plumbago that was much infested with the red spider: but after I had syringed it well for a few mornings, there was not an insect to be found on the plant. I verily believe that clear water applied as before observed, will effectually destroy the red spider; and, if constantly used, it will preserve any plant from this destructive insect. I think that if stoves or green-houses devoted to the culture of exotics were steamed well every night (water being applied in the form of steam), the plants would never be attacked by the red spider —*Gardener's Mag.*

To Destroy Red Ants.—These insects are extravagantly fond of shagbarks or American walnuts; fill a large dish with these nuts, cracked, and they will quit every thing else to cluster upon it. When the dish is well covered, remove it carefully, and brush them all in the fire; at the same time have a little *corrosive sublimate* in a cup to sweep in such as happen to stray from the dish; and touch all the cracks and crevices from which you have seen them come with a feather dipped in the same poison. In one week if this be repeated they will all be gone. By no means leave the cup, or poisoned feather about for an instant.—*Frugal House wife.*

Flour of Ohio,—It should be generally known by the agriculturists of our region, that flour manufactured from our wheat is deemed in the market to be much inferior to that made from wheat in the western part of the state of New-York. And also, that it has been found on experiment at Rochester mills, that N. York wheat makes 5 pounds of flour in the bushel more than the Ohio wheat; and that the flour sells for 50 cents and a dollar more per barrel. This difference alone is an enriching profit, which our farmers should endeavour to save by more thorough cultivation —*more working* of the lands intended for a wheat crop, and more attention to the quality of seed wheat. —Zanesville, July 20.

New-York Produce Market, August 17, 1831.—Ashes, Pots 4.80, Pearls, 5.12; Cotton, N. Orleans, 11½; Flour, supplies of fresh ground flour scarcely equal to the demand, 5,37 to 5.50, Rye Flour, 3.62 to 3.75; Wheat continues scarce, 1.09 to 1.15; Rye, 75 to 78; Indian Corn, 73 to 75; Hemp, Kentucky, not the best $160; Plaster Paris, 3.75 to 3.88; Beef, Mess, 8.50, Prime, 5.12; Butter, 13 to 15 Lard, 9 to 10; Pork, Mess, 14 to 14.75, Prime 11.12 Cheese, 5 to 7; Wool, Marino, 45 to 75, Lamb's 1s quality 60 to 62, 3d do. 30 to 35.

Strawberries.—We would remind those who wish to cultivate this fine fruit in their gardens, that the beds in which they set them, should be well manured, and dug at least one month before planting out the vines, which should be done early in September, in order that they may take sufficient root to prevent their being thrown out by the frost during winter or spring. A situation that is rather moist than otherwise, is preferable, and one that is half shaded is better than one exposed to the full blaze of a meridian sun. Give the ground deep and repeated spadings, previous to setting the young plants, which should be at a distance of from twelve to eighteen inches apart. —*Genesee Farmer.*

Cider.—The orchards are bending under the weight of apples and the time of making cider is near at hand. The general process is understood, but attention to two or three particulars, may greatly increase the value of the liquor. Why does Burlington cider bring double the price of that made elsewhere?

Use water freely in making every thing sweet and clean before you begin—but very sparingly afterwards.

Put your apples after being gathered for a few days in a dry place exposed to the sun.

Let your casks be perfectly sweet.

See that the straw used be clean and bright. Throw all the rotten, or rotting apples to your pigs. Keep the several sorts of apples separate; if ground together the cider will not be so good.

When the liquor has undergone sufficient fermentation to throw off the impure matter in it, and while it is yet sweet, take a clean cask, put into it a bucket of cider, set fire to a clean rag that has been dipped in brimstone—let it burn inside the cask so as to fill it with the fumes of the brimstone—shake the cask well and then fill and bung it tight.

This mode is highly recommended to preserve the cider sweet, while it be yet pure. The crab apple should be more extensively cultivated for cider.—Liquor, as delicous as wine may be made from it.

The Weather.—The weather continues unfavorable for securing hay and grain. Much rain has fallen within the last week, and the streams in this part of the country are unusually high for the season.—*Genesee Farmer, July*, 30.

Management of Pigs.—The following experiment was made by a gentleman of Norfolk. Six pigs of the Norfolk breed, and of nearly equal weight were put to keeping at the same time, and treated the same as to food and litter for about seven weeks. Three of them were left to shift for themselves as to cleanliness, the other three were kept as clean as possible by a man employed for the purpose, with a curry-comb and brush. The last consumed in seven weeks fewer peas by *five bushels*, than the other three; yet they weighed more when killed by two stone and four pounds (thirty-six pounds) upon an average, or six stone twelve pounds upon the whole.—*London paper.*

Furs from the Missouri.—The St. Louis Times of July the 16th says, "The Steam-Boat Yellowstone, under the command of Capt. B. Young, arrived at St. Louis on Thursday last, from her trip up the Missouri. The Yellowstone is owned by the American Fur Company, and left this place on the 15th of April last, for the purpose of proceeding as far up as the mouth of the Yellowstone—2000 miles—carrying the goods for the Indian trade with which the Company annually supplies the traders in its employ. Owing, however, to the low stage of the water in the Missouri, the Yellowstone was unable to proceed beyond Fort Tecumseh, at the mouth of the Little Missouri, 1,300 miles above St. Louis. This is 600 miles higher than any other Steam-Boat has hither to navigated. The Yellowstone brought down a full cargo of Buffalo robes, furs, and peltries, besides 10,000 pounds of Buffalo tongues.

The Consumption of Indian Opium in China, from the first of April, 1830, to the 1st of January 1831, was 15,145 chests, valued at 10,083,302 dollars.

Blackberry Tea Cure for Dysentary or Diarhea.—Blackberries are of the most pleasant and speedy cures for this complaint. When the berries cannot be obtained the stems and leaves, or roots should be boiled with a little rice, until the latter become entirely dissolved, and the liquid drunk with a very little milk.

The Harvest.—The farmers in this section of the country appear to be destined to suffer greater evils from a superabundance of rain this season, than they have ever heretofore, experienced from drought. The injury to the grain during the period of harvest was in many cases very severe; a great deal of hay also has been damaged, and during the present week we have had a succession of violent rain storms, which have damaged the cornfields very greatly, and added new labor to those which the farmers had already experienced from the same cause. The breach in the canal mentioned in our last, will not be repaired as soon nor as easily as we hoped. No time, however, will be lost by our indefatigable engineers in repairing and rendering it navigable again.—*Cincinnati Tiller July*, 29.

Tansey.—This herb may frequently be observed growing in the country church yards, which induces us to think it was formerly used as a funeral plant, Tansey has this peculiar virtue, that if any dead animal substance be rubbed with it, the flesh fly will not attack it. Boerhave says, the leaves applied to a dead body, and intruded into the mouth and nostrils, preserve it from putrefaction and insects; whence the plant has been called *Althanazia*, that is, immortal plant.—*Exeter News Letter.*

Seed Cauliflower.—Mr. FLEET, I succeeded this year in raising some *Very fine Early* Cauliflower; and I was desirous of getting seed from some of the best, but was told by those that follow Horticulture, that I could not as they would not seed in this Country. I however tried by trimming the Plant of the seed stalks. I have now a fine prospect of seed. H. W. *Cincinnati, Ohio, July* 22 1831.

Oil accelerates the Maturity of Fruit.—A drop of animal or vegetable oil, placed on the crown of a fig will force it into maturity several weeks before its time—changing it in a few days from a small, hard and costic, to a large, mellow and lucious morsel.

To cut glass.—Hold your glass in one hand under water, and with a pair of scissors you may cut as you please. Or take a red hot tobacco pipe put it to the edge and trace it as you want it; the crack will follow the edge.

[For the New-York Farmer.]

ART. CXCVI.—*Insects Injurious to Fruit—Answer to N. Darling.* By D. T.

The *facts* stated in N. Darling's article on Insects in the New-York Farmer Vol. 4, P. 178—9, are interesting; and I hope our entomologists will make us better acquainted with those depredators on our fruit.

In my note on the *Chrysomela vitivora* I remarked, "Our vine leaves were infested last year by a little caterpillar which *we strongly suspect was the larva of this insect;* and now wherever this insect has appeared, the same kind of caterpillar has appeared on the leaves." Doubtless in reference to this note, N. Darlings ays, "The bug is *supposed by some* to be the parent of this worm or slug. *This however is only supposition, and not very probable,* as it is *not common* among the insect tribes to find the parent and the offspring at the same time feeding on the same food,"—Such instances do occur, however in the Aphis, Coccinella, Cantharis, &c.; and Nicholson says "*the larvæ of this genus* [*Chrysomela*] *feed on the leaves of trees and plants.*" But the best way to argue questions of this kind is by direct reference to actual experiments made by keeping possession of the young insect till it attains it perfect state.

N. Darling's experiments which go to prove that two kinds of worms infest our fruits, ought to be repeated in different districts as both kinds may not occur in every place. He remarks that the smaller kind "are white throughout, while the larvæ of the Curculio have orange colored heads;" and that "there is reason for the belief that the larvæ of the curculio, all or most of them, leave the various fruits in which they are deposited, as early as the beginning of July, and that *the worms found in fruits after that time have a different parent.*" A writer of great respectability however, has asserted that the Curculio "continues its depredations from the first of May until Autumn;" and now on this day (8 mo. 5) I have taken a worm with an "*orange colored head*" from a bell pear, and put it in a tumbler with moist earth.

N. Darling asserts that "Paving under the trees as proposed by Mr. Prince; shaking the trees frequently as proposed by Dr. Thatcher; catching the insects in a sheet as proposed by "D. T." are all *ineffectual guards* against the ravages of this insect in a country full of orchards, as in Connecticut." I will therefore examine the plans which he has so summarily rejected.

N. Darling says, "In order to effect its metamorphosis successfully it seems necessary for the insect to be enclosed in earth sufficiently moist to keep its exterior soft and pliable." W. Prince supposed that the parent was aware of such requisite, and therefore would not deposit her eggs in fruit which hung over a pavement. But letting that pass for the present, it is most certain from N. Darling's own account that the larvæ must perish in such a situation; and Dr. Tilton, one of our earliest and best writers on this subject has said "*there is no surer protection against the Curculio than a pavement.*"

It appears that Dr. Thatcher (for I have not seen his American Orchardist) recommends "shaking the trees frequently." Every one acquainted with the Curculio knows that it is not only timid and readily alarmed at the approach of a person, but that it commonly falls, on jarring the tree. If then, the shaking be frequently repeated, the plan must be successful; and many instances may be cited to shew that trees standing near frequented paths, have been more productive than others remotely situated. Dr. Tilton however, has given us a case in point: "Col. T. Forrest of Germantown having a fine plum tree near his pump, tied a rope from the tree to his pump handle, so that the tree was gently agitated every time there was occasion to pump water. *The consequence was that the fruit on his tree was preserved in the greatest perfection.*" It may be remarked that the village of Germantown (Pa.) is probably as thickly studded with fruit trees as any part of Connecticut.

I now come to the plan of catching these insects on a sheet. This includes Dr. Thatcher's, with one additional advantage: a great proportion of them will never return to the tree. *We have several times destroyed more than one hundred Curculios in less than half an hour;* and there can scarcely be a *better* unless there be an *easier* mode of lessening their numbers.

In search of this *desideratum* I will therefore examine N. Darlings "two modes of extirpating the insect—stocking the fruit orchard with fowls, *making the earth under the trees mellow enough for their toes to penetrate easily the retreats of the insect*; or *hauling away the earth under the tree, about the 10th of July to the depth of three inches, and spreading it thin in the sun.*"

It is to be borne in mind that these "modes" are intended to superseed the former *projects.* I cannot think either of them however, very practicable. I would sooner trust hogs* and geese to devour the Curculio encased in the fruit, before it entered the ground, than I would trust fowls to scratch it out from a depth of three inches, even in mellow earth. But what could we hope from their scratching in clayey soils in wet weather? I apprehend they would prove "ineffectual guards."

In respect to the other mode, I have doubts whether we could introduce it among our independent farmers in so busy a season as "the 10th of July." It will also appear on a fair estimate that this hauling out of the soil, drying it in the sun, and returning it round the tree, would hardly cost less than a hundred dollars an acre; and in a wet season (like the present) it is to be feared that the larva could not be *dried up* before it would effect its metamorphosis. I should also be unwilling to lay bare the roots of my trees and thus deprive them of the principal means of nourishment in so sultry a season.

But "in a country full of orchards" it may be expected that a fruit garden though effectually cleared, would be duly visited in the following spring if not earlier, by the neighboring curculios; and against this very probable occurrence, no provision has been made. As there is no *pavement* to discourage them, and no hog, or other creature, to *shake* the trees, and frighten or destroy them, they must have quiet and peaceable possession. D. T.

P. S. 8mo. 8. From apples I have this day taken three more worms "with orange colored heads" and which appear to be the full grown larvæ of the Curculio—another, similar, but only half as long—and two others resembling the former *with brown heads* but 100 times less in bulk than the first kind. Viewing

*See New-York Farmer Vol. 3 p. 60, and Vol. 4 p. 47

these last under the microscope, I am satisfied that they also are larvæ of the common Curculio, thus far confirming Dr. Tilton's remark that this insect "continues its ravages from May until Autumn." We have, therefore, another strong motive for declining N. Darling's plan of removing the soil.

It appears that the eggs from which these later broods spring, are commonly deposited in the blossom end of the fruit.

ART. CXCVII.—*Milk Sickness.*

By the following, taken from a western paper, it appears that the cause of this complant is, at length, discovered. Our readers will perceive some analogy between the effects of the plant and those of poisoned cheese.—*Ed.*

In settling the State of Ohio, soon after the luxuriant herbage began to be eaten down, it prevailed on the head streams of Paint creek, on Darby creek, Little Miami; on Mad river, particularly in the vicinity of the mouth of Buck creek, where Mr Robert Renick resided, (now Springfield.) It was not until the year 1807, that I could form the least conjecture what could be the cause of producing this milk sickness, or puking complaint. But some time during this year Mr. Renick found some of his cattle afflicted with the *trembles*, as it is called. He kept up the sick cattle, and by administering to each a heavy draught of whiskey, they recovered. He then turned out the well cattle, and followed them into the range, to discover, if he could, the cause. The cattle took their usual round, and Mr. R. followed them; it being the fall season of the year, (the usual period when cattle take the trembles;) Mr. R. discovered his cattle feeding very greedily on a poison vine which grows very plentifully on shady, wet and marshy ground; the result was, his other cattle took the trembles also, and he had to doctor them in like manner.

From the above period to the present time, I have kept my attention fixed on the above circumstance, and have examined and inquired to find out the cause, from Ohio, through Indiana, Illinois and Missouri; and often been led to conclude that it was a *weed*, at other times, *stagnant water* impregnated with arsenic, again a small *running vine*; but recent circumstances have at length fully confirmed me in the belief that Mr. Renick made a correct discovery.

This complaint in many parts of the west has at times been truly afflicting. It has been communicated to adults by means of the beef, the milk, and the butter, and on some occasions has swept away almost a whole family of children, and sometimes parents also, who have used, perhaps on many occasions from necessity, a milk-diet.— When the cattle have died with the trembles, the hogs that have eaten the flesh died in like manner, and the dogs after eating of the flesh of the cattle or hogs, have died also.

This poison vine grows up about knee or waist high, stubby, and bushy on the top; the leaves resemble very much the poison vine which frequently ascends the trees, (not the creeping poison vine,) and may be of the same species as the former. It is so well known by our western settlers that any further description is unnecessary. It is frequently found in marshes, deep hollows of hills, and on wet lands.

During the last severe winter, Mr Horrel, a highly respectable citizen of our neighboring county, (Clark,) and his neighbor, Col. Harrod, formerly from Kentucky, both of whom are intelligent men, and reside in the vicinity of Charleston, on the head of the little Miami, where the trembles and the milk sickness have prevailed for many years; both of the above gentlemen vouched for the following fact:—That during the long continuance of the snow, about thirty cattle were in a lot inclosed where this poison vine was raised above the snow, and although they were well fed, they chewed the stalks on the vine and took the trembles, and most of them died. Those cattle put into an adjoining field, and fed and drank at the same well or pool, were not at all affected, though fed on the same food. On Darby Creek or its waters, I was informed on yesterday, by an intelligent person, that there was a similar case occurred.

I am Sir, very respectfully, your obt. servant and subscriber,

TH. S. HINDE.

Urbana, June 27th, 1831.

ART. CXCVIII.— *Importance and Profitableness of Silk Culture.* [Continued from page 200.]

I have seen different estimates of the quantity of land, neccessary to be devoted to the growth of mulberry trees with a view to a given quantity of produce. That which seems to have gained the most general currency, is, that one acre of ground, set with mulberry trees 1 1-2 rods apart, will, when the trees are five or six years old, afford leaves enough to make forty pounds of silk, which, at a moderate estimate, will be worth $200. But this is very vague, and in my opinion, not at all to be relied upon. It brings into requisition a greater quantity of land than is necessary. Mr. Genet of Albany, who wrote four years ago on the subject, and appears to have written understandingly, says, that a small hedge of mulberry bushes, occupying the 20th part of an acre, will, when the trees are three years old, produce leaves to feed 100,000 worms, and that the produce will be 30 pounds of raw drawn silk. He adds, that, if the whole acre be occupied with bushes set in the same manner, the produce of silk will be 600 pounds.—This seems almost incredible. Many other estimates are before me, varying from each other considerably, but they concur to establish the fact, that a very small quantity of land will be sufficient for extensive operations in the culture of silk. Writers differ also as to the best manner of setting the trees.—Some would have them stand 1 1-2 rods apart, which I think would give about 100 to an acre. Others would have them stand at a less distance from each other, so that an acre might contain 150, or more. As now advised, if I were about to plant, I should set in the latter form. Although it will be necessary to have orchards of standard trees, yet doubtless, an immense saving may be made by cultivating mulberry hedges. For instance, the orchard may be surrounded with a hedge, without any detriment to the standard trees. Another mode of cultivating the mulberry is recommended, that of sowing them thick in the drill form, as we sow onions, or they may be sowed broadcast, as wheat is sown. These, after the first year, are to be cut annually with a scythe, as the leaves shall be needed for the worms. It is likely that a small grove or a few rods, growing in this form, might be a useful handmaid in the general concern.

To the man who seriously thinks of undertaking the culture of silk, it will be satisfactory to know what buildings he must have for the accommodation of his worms, and what will be the expense of them. I regret that, in relation to this subject, my means of information are scant. It does not appear that any considerable expenditures will be needed to provide house room for the worms. It seems, they may be kept in any room, from which cats, rats and mice can be excluded.—An out-house, or the chamber of an out-house would answer the purpose. An upper room is preferred to a lower one, on account of its containing less humidity.

Barn floors are sometimes used for this purpose, and perhaps the chief objection to them is, their exposure to the rats and mice, and such other vermin, as would annoy the worms. A room of common size will be sufficient for a vast multitude of worms. They are kept upon shelves, placed one above another at suitable distances apart; and as many may be so placed, as the height of the room will admit. It is estimated that a square foot will contain 110 worms, when arrived at their greatest size. A shelf three feet wide, and twenty feet long, will contain 6,500 worms.

4th. It is understood, that the labor of gathering leaves, and nursing the silk worms, and indeed the whole process of their culture, is simple, easy, and trifling in amount. It may all be done by women, children, aged and decrepid people. Mr. Tuffts, of Massachusetts, who has written ably upon this subject, says that an active child, fifteen years old, is sufficient to take care of sixty thousand worms, till within ten days of their winding; after that, the help of one or two more such children will be needed. He adds, that one woman, in the vicinity where he lives, performed all the work of taking care of sixty thousand worms, and did her days work every day in spinning flax.

It is estimated that, in Europe, three thousand worms will produce one pound of raw silk; it is believed they will produce more in America. We may suppose then, that the sixty thousand worms, fed by this woman, produced 20 pounds of raw silk. This, estimated at $5 a pound (a low estimate certainly) would amount to $100. It appears then, that the woman gained $100, and this was done by gathering up the fragments of time, and without interrupting her ordinary business.

With a few remarks, which the subject seems to have suggested, I will close this communication. In applying the subject to your case, permit me to say, that, if you are seriously intending to undertake the culture of silk, it will only be necessary that you set, next spring, a few hundred of mulberry trees, and, in the spring following, you may on a small scale, commence operations. A part, at least, of the trees should be set in the orchard form for standards, say, at the distance of 12 or 15 feet apart; the rest may be set in rows, and two or three feet apart on the rows, to form hedges. It is said that, on any ground where the apple tree will thrive, the mulberry will thrive also. A sandy or gravelly soil is recommended. Clay, probably would not be good. It is not material that the soil be rich, for it is said, the mulberry grows well on thin barren soils, and that leaves produced on such soils, make the finest silk. A southern aspect is preferred; a northern one should be rejected.

I remark again that, for ought that can be seen, thousands of our farmers might, by introducing the culture of silk, greatly improve their condition. To the farmer who operates upon a small scale, and can scarcely avail himself of means to support his family, an extra annual income of one, two, three or four hundred dollars, would be a surprising help. It is believed, almost any farmer might, in the way here prescribed, secure to himself such an income, without interfering with the ordinary business of his farm.—Mechanics too, who can supply a very small piece of ground for the growth of mulberry trees, may avail themselves of the same advantages. Especially the man, who finds himself the master of a young and increasing family, should consider himself as deeply interested in the subject of this communication.

My last remark is that the culture of silk might supply to the public houses of pauperism an easy, healthful, and very profitable branch of industry.

I am, Sir, very respectfuly, yours, &c.

DAN. BRADLEY.

[This Article which we take from the *Quarterly Journal of Agriculture*, published in Great Britain, contains information that should be attentively considered by those who keep horses in this country.]

ART. CXCIX.—*Hints on the most Economical Manner of Feeding Horses.*

To economise the food of working animals, must be admitted to be an object of great public and private importance. The practices of different parts of the country are not at all alike perfect in this respect. In Scotland, which is behind no country in general agricultural improvement, there is yet much to be learned in this branch of rural economy. In the general management and economical methods of feeding horses, Scotland, generally speaking is greatly behind England; but in England itself, the most approved practices are not always generally known, or universally adopted.

A great variety of articles, as every one knows, are employed in the feeding of horses; of grains, there are oats, oatmeal, barley, bran; of leguminous plants, there are beans and peas; of roots, there are the potatoe, the turnip, the carrot and the parsnip; of dried grass and other plants, there are hay, saintfoin, clover, rye grass, and straw: and, occasionally, other substances, as oil-cake.

In North Wales, where a scarcity of hay is often much felt during winter and the early part of spring, the gorse, or furze, is frequently employed to feed both horses and cattle. It is prepared for that purpose by being bruised by small watermills, and, when mixed with a portion of oats, or chopped or cut hay, it is found to be a strong and nourishing food for the horse. This plant is also similarly used in several districts of the county of Devon. And, in Scotland, where the furze or gorse abounds in many places, such a practice might be adopted with great advantage.

Of the different kinds of grain given to horses, the oat is found to be the best adapted to support the strength and spirit of the animal. Amongst roots, the carrot and the parsnip are much valued: but these, although they contain more saccharine matter than the potatoe, and although probably equally nutricious,

yet, as they require greater nicety in their cultivation, and a richer and deeper soil, they cannot be so universally and cheaply raised, and in such large quantities, as the potatoe. The latter, growing in almost every soil of this island, may be said to be the most useful of all this class of plants, for the feeding of horses.

In feeding with potatoes, however, one precaution should never be neglected, which is to steam or boil them before using them. The giving the potatoe in its raw state to the horse, has been fatal to numbers of these valuable animals, especially when on hard work, and overheated by violent exertion. In its crude state, the potatoe is exceedingly apt to ferment in the stomach of the horse.

In feeding of the horse with grain, whatever be the kind given, it should always be bruised; or, what is better still, coarsely ground. The hay, too, ought to be cut into small lengths, not exceeding half an inch, nor less than a quarter of an inch; and a quantity of straw, cut in like manner, should be mixed with it. For the purpose of bruising the grain, and cutting the hay and straw, simple machines have been invented which can be obtained at no very considerable cost. In Scotland, where thrashing-machines are universally employed, it is recommended that the machinery, for the purpose referred to, should be attached and moved by the same power.

When the grain has been bruised, and the hay and straw cut, it will be necessary to proportion the quantity of each to be mixed together, and to make up a sufficiency of food on which a working horse may subsist for twenty-four hours. And, in order to illustrate this, we cannot do better than mention a few examples, taken from the practice tables, where this mode has been long and sufficiently followed.

In the stables of Messrs. Hanbury and Trueman, in Spittalfields, where 82 horses are kept, the animals receive all their food in the manger, no hay being ever put into the rack. The stable, which is spacious enough to contain this number of horses, is one of the most perfect in all its arrangements in London, and being admirably well ventilated, disease rarely occurs.

The excellent health, condition, and general appearance of these horses, evince the goodness of the treatment adopted. They are fed in the following manner. Each horse receives in the twenty-four hours 18lbs. of cut hay and straw, the proportion of the latter being one-eighth; 14lbs. of bruised oats, and 1lb. of bruised beans; making in all 33lbs. of food. In summer no beans are given, as they are then found to be too heating; but, in consequence of the beans being withdrawn, a small addition is made to the quantity of oats. Half a pound of salt is given weekly to each horse. This being divided into two portions, one of them is given on Saturday night, the other on Sunday and being so administered, the salt generally purges the animal. And on account of this effect, and as the animals receive no boiled or steamed food, it is thought better, by Mr. Hanbury, to supply the salt in this manner, than to deal it out nightly in smaller quantity.

In another stable in Long Lane in London, belonging to Mr. Higgins, where above 300 heavy cart-horses are kept doing much daily hard labour, no hay is ever put into the rack. It is always mixed with traw, snd cut down into lengths not less than ¼th of an inch, The hay used is generally clover hay, with one half of barley straw. The oats, barley and beans, are always coarsely ground before being added to the cut hay. Although the quantity of hay, being 19lbs. for a very large horse, and 14lbs. for a very small one, given in the 24 hours, remains unaltered throughout the year, it is found advisable during the same period to alter the kinds and quantities of grain. In winter, a larger portion of beans is given than of oats, the quantity being two-thirds of the former and one-third of the latter. As the spring sets in, the allowance of beans is gradually diminished to one-third, the other two-thirds being made up of barley, which grain is held to be more cooling for spring food. But in summer oats are substituted for barley. Of the mixture of these bruised or ground grains the large elephant size cart-horse receives 20 lbs., the smaller animal 16lbs.; and with the addition of 3lbs. of bran during winter, and 4lbs. during the rest of the year, every large horse thus receives in the 24 hours about 40lbs. of mixed provender, and every smaller horse about 33lbs. Salt is not given during winter, but always in other quarters of the year; an ounce being then daily mixed up with other ingredients of the food.

[To be continued.]

ART. CC.—*Method of preserving Tomatos.*

MR FESSENDEN—As Tomatos, have, at last, become common in our market, I send you a receipt for preserving them during the winter.

Besides the various modes of preparing this delicious vegetable for the table, it may be stewed after being pealed with sugar, like cranberries and gooseberries, producing a tart equal to either of those fruits. Try the experiment and be satisfied. [Gen. Dearborn in the N. E. Farmer.]

'The boiling required for the preservation of fruits always changes their quality, and sometimes entirely alters their character; and it often happens, when the fruits are acid, as in the Tomato, that they imbibe in the copper vessels in which they are stewed to a certain consistence, metalic principles, which are injurious to health. This double consideration induces us to publish an excellent method for preserving the tomato, which does not alter the quality of this fruit, and does not require the action of heat.

'A sufficient quantity of salt is dissolved in spring or river water to make it strong enough to bear an egg; select perfectly ripe tomatos, and place them well and without pressing them in a stone or glazed earthen pot which is to be filled with the brine; cover the pot with a deep plate in such a manner that it presses upon the fruit, and by this simple process tomatoes may be preserved more than a year without attention. Before cooking them they should be soaked in fresh water for several hours.' [Horticultural Annals of Paris, No. XXXIV.

ART. CCI.—*Proceedings of the Rensselaer County Horticultural Society.*

The sixth exhibition of this Society took place at the Rensselaer House on the 9th August. The dis-

play of vegetables, fruit, plants and flowers was very creditable to the cultivators. Dr. Spafford agreeably to a previous request of the Society, delivered a valuable and appropriate address.

Mr. Gorham, of Lansinburgh, presented a superior Cape Brocoli.

Mr. Briggs, of Schagticoke, presented several bunches of early black cluster grapes.

Mr Norton, Lansingburg, two large Water-melons, two fine citron Musk-melons, two Barker's Newton Pears, and a quantity of Tomatoes.

Dr. Spafford, Lansinburgh, four bunches of ripe Native Grapes, (Dutches connty.)

Mr. A. Walsh, Lansingburgh, Celery, Globe Artichoke, (*Cynara scolymus*,) Cardoon, (*Cynara cardunculus*,) Green Nonpariel, Broad winsor, and Mazagan Beans, (*Vicia faba*,) a basket of Native (Rhode Island) Grapes, Lima Beans, (*Phaseolus limensis*,) Tomatos, (*Solanum Lycopersicum*,) Devonshire Quardon Apple, perfectly ripe, Hawtherdean and golden Harvey Apples, Okra, African Millet, (*Milium nigrocons?*) very fine Cabbage, large Spanish Filberts, a beautiful bunch of the Roan Tree berries, (*Sorbus aucuparea*,) Trifoliate sunflower, Perennial sunflower, Dwarf sunflower, Tall sunflower, (*Helianthus altissimus*,) Sensitiveplant, (*Mimosa sensitiva*,) Bright Scarlet Dahlia, Snowberry, Monthly cherry—specimens, exhibited from the same tree, of blossoms, fruit perfectly ripe, and in various states between green and young fruit and maturity, Irish Ivy, a branch of the hop tree with second growth of Hops. (*Ptelea trifoliata*,) Japan Lily, Purple fringe tree, Burning Bush, Irish Yew, Dwarf Horse Chesnut, Pocok's dark yellow Senna, Scorpion Senna.

Remarks.—Ptelea trifoliata is the three leaved shrubby Trefoil. We have regulated the above as the time to have "it in the next paper" would permit.—so much disagreement between the English and botanical names, that we were obliged to omit a considerable part.

Art. CCII.—*Proceedings of the New-York, Horticultural Society.* [Continued from Page 198.]

August 16.—Mr Geo. Still, gardener to Dr. Bloodgood of Flushing, presented 2 large Egg Plants, 4¼, and 3¾ lbs.

Mr. Mc Kenzie, gardener to C. Oakley Esq., 2 very fine Egg Plants, one doz. free stone Peaches of superior flavour, Cestrum nocturnum, and beautiful Carnations.

From the garden of Alderman Wells, Lycium barbarum,

August. 23.—Mr. Alex. Smith presented yellow Golden Rennette Apples.

Mr. Hyslop, gardener to N. Prime Esq. presented 3 very superior Royal George free stone Peaches, raised under glass. Also 3 Newington cling, very fine, under glass.

Jn. R. Murray Esq. 3 very superior Pine Apple melons

Mr. Knox, a beautiful bouquet of flowers, consisting of Rose Belle De Monza, China Asters, Elegant Zenia, Centaurea americana, Lobelia cardinalis, Euphorbia variegata, Amaranthus bicolor, African and French Marygold, Achillea, Double Althea; two kinds of Balsams.

Mr. Mc Kenzie, gardener to C. Oakley Esq. a splendid Boquet of flowers.

Remarks. Mr. Loudon, in one of his late numbers, observes that the labor of *correcting* and arranging the *printed* notices of the exhibitions of the county or "Provincial" Societies in Great Britain is greater than all the other which he bestows on his work; and this labor is performed not more than four or five times in the year. If this is the case in England, where *Botany* has been so long and generally pursued, indulgence should be shown for *some* of the mistakes among us, where the Secretary has but a few minutes to take the names from a dozen different persons, and is obliged to give to the public, perhaps the very next day, the whole or part of what each exhibited, or some dissatisfaction is expressed. It is not unfrequently the case that a plant is exhibited, the specific name of which none at the exhibition *positively* know; in this case the genus only is given, that such a one as 'Q,' may have *sufficient occasion* to become 'bewildered in conjecture'; and it sometimes happens that the latest generic name, even when our best florists are present, cannot be given without a little research.

With respect for the motives of 'Q,' we cannot but think that the organ of hyper-criticism is disproportionably large, or that he is very ignorant of the heterogeneous nature of our Societies, and the manner in which they are conducted, and of the difficulties attending the correcting of the press.

The above was put in type to accompany the article of 'I Guess,' p. 195. The "Pink" really had 1500 flowers—and its circumference was measured near the top of the plant. *Ed.*

Art. CCIII.—*Weevil.*

It has become a matter of much importance with farmers and millers to prevent, if possible, the distruction which this little insect yearly makes in their grain. Various methods have been resorted to for this purpose, but none have yet been found sufficiently efficacious to be generally adopted. In the hope however that some means may be discovered that will have the desired effect, we will gladly communicate the result of any attempt at this object, and with this view give the following method as practised by Col. Drake of this vicinity, for two or three years past with entire success, viz.:—In mowing or stacking his wheat he sprinkles a small quantity of salt over each layer of sheaves, Four or five quarts to the hundred dozen he has found quite sufficient. By this means he has preserved his wheat entirely free from weevil while his neighbours have complained of great damage. Of the security thus afforded he says he is altogether convinced from an experiment made last year. Having omitted to salt a small part of his wheat, he found it on examination very much eaten, while the salted wheat remained entirely undisturbed, although in the same mow. One advantage it is to be noticed, which this method possesses over every other, is that the straw is almost equal to the best timothy hay, and cattle will eat it, we are informed, in preference. Let it be tested. *Lebanon Ohio Star.*

[On taking up the Address of Gen. Harrison, it was our intention to make a few short extracts only, but on perusing it, we found it abounding in so many observations interesting in a national point of view, and containing so many facts of a practical nature, that we deem its almost entire publication in the Farmer very appropriate.—*Ed.*]

ART. CCIV.—*An Address delivered before the Hamilton County Agricultural Society, at their annual exhibition, held on the 15th and 16th of June*, 1831.

The exports of Ohio are generally the substantial comforts of life, which are every where acceptable, their arrival hailed as a blessing as well in the mansions of the rich, as in the cottages of the poor—by the luxurious inhabitant of the tropics, cloyed with the luscious product of his burning climate, as by the poor negro who ministers to his wants. Alas! that there should be an exception, that a soil so prolific of that which is good, should by a perversion of the intentions of the Creator, be made to yield that which is evil—to scatter life and death with an equal hand. To the heart-cheering prospects of flocks and herds feeding on unrivalled pastures; fields of grain exhibiting the scripture proof that the seed had been cast upon good ground—how often is the eye of the philanthropic traveller disgusted with the dark unsightly manufactories of a certain *poison*. Poison to the body and the soul. A modern *Æneas* or *Ulysses* might mistake them for entrances into the Infernal Regions; nor would they greatly err. But unlike the passages which conducted the Grecian & Trojan heroes on their pious errands, the scenes to which these conduct the unhappy wretch who shall enter them, are those exclusively of misery and wo. No relief to the sad picture: no Tartarus *there*—no Elysium *here*:—it is all Tartaric darkness, and not unfrequently Tartaric crime. I speak more freely of the practice of converting the material of the "staff of life," (and for which so many human beings yearly perish,) into an article which is so destructive of health and happiness, because in that way I have sinned myself; but in that way I shall sin no more.

The encouragement of agriculture, gentlemen, would be praiseworthy in any country; in our own it is peculiarly so. Not only to multiply the means and enjoyments of life, but as giving greater stability and security to our political institutions. In all ages, and in all countries it has been observed, that [the cultivators of the soil, are those who are least willing to part with their rights, and submit themselves to the will of a master. I have no doubt, also, that a taste for agricultural pursuits is the best means for disciplining the ambition of those daring spirits, who occasionally spring up in the world, for good or for evil, to defend or destroy the liberties of their fellow-men, as the principles received from education or circumstances may tend. As long as the leaders of the Roman armies were taken from the plough, to the plough they were willing to return. Never in the character of the General, forgetting the duties of the citizen, and ever ready to exchange the sagum and the triumphal purple, for the homely vestments of the husbandman. The history of the far famed republic, is full of instances of this kind; but none more remarkable than our own age and country have produced. The fascinations of power, and trappings of command, were as much despised, and the enjoyment of rural scenes, and rural employments as highly prized by our Washington, as by Cincinnatus or Regulus. At the close of his glorious military career, he says, "I am preparing to return to that domestic retirement which it is well known I left with the deepest regret, and for which I have not ceased to sigh through a long and painful absence."

Your efforts, gentlemen, to diffuse a taste for agriculture amongst men of all descriptions and professions, may produce results more important even than increasing the means of subsistance and the enjoyments of life. It may cause some future conqueror of his country to end his career,

"*Guiltless of his country's blood.*"

It is with great pleasure that I observe amongst the members of the Society, many gentlemen who are not engaged in practical agriculture; some of them of high standing in the learned professions. Not only will the Society be promoted by their pecuniary contributions, but the occasional contributions of their theoretic views, may greatly assist the practical agriculturists in forming a correct system. There can indeed be no complete system, without the union of theory and practice. It is true, that there are many tolerably successful farmers, who have no knowledge of the theory of the art, but there can be no doubt that their success would be much greater if they possessed that knowledge. The opperations of nature are invariably carried on upon fixed principles; a knowledge of these principles would lead to the detection of many of the errors which are to be found in the practice of almost every agriculturist, and which without the aid of science, chance alone would enable him to discover. Among the objects to be accomplished by the establishment of such societies as your's gentlemen, one not the least important, is the influence they may exert to procure the enactment of laws which may advance, or the repeal of those which may be considered prejudicial, to the interests of agriculture, There are two subjects coming under this description, which may possibly require the interference of the Society. There is no person, who has turned his attention to the situation of the Western conntry, that does not know how much the prosperity of the agricultural and mechanical interests of this section of it depends on the trade to the Mississippi; she may multiply our means of communication with the Eastern ports, as much as we may by means of canals and rail-roads: still from this part of the Ohio, and below us, for many of our articles, we must mainly depend on the states of the lower Mississippi. This market will be a good or bad one, in proportion to their wants and their ability to purchase. Their wants will be, in proportion to the increase of their population, and both the increase of their population and their ability to purchase, will depend upon the success of their agricultural pursuits. It is obvious, therefore, that *we* have a deep interest in whatever concerns *their* interest. Their prosperity must be our prosperity; their adversity must inevitably bring a correspondent depression upon us. One of the principal articles (perhaps the most important) of the production of Louisiana, is sugar, Its cultivation to any considerable extent is posterior to the cession of the country to the United States. Under the fostering care of our govevnment, which afforded it a protecting duty, it has been greatly extended, producing advantages to the country as well as to the plan-

ters. Among the former, is the abstraction of a large amount of labour, from the cultivation of other articles which had been produced to an amount beyond the demand. In this way the Southern states, particularly the cultivators of cotton, were greatly benefited: while the Western states reaped the advantage of an increased demand for almost every article of their agricultural and manufacturing products, and a diminution of the price of sugar, in the last twenty years, of at least *three hundred* per cent. Before a sugar manufactory can be put into operation, an immense amount of iron work, machinery and castings, as well as wagons, carts, drays, &c. &c. must be procured. These are purchased at Pittsburgh, Cincinnati, or Louisville. Horses, oxen and a supply of provisions must be obtained; and these are purchased of the Western farmer. Sparingly and economically perhaps at first, but always increasing as the cultivation and manufacture progress. If the enterprise is successful, where are the surplus gains of the planter expended? Who is there in this part of the country so ignorant as not to know, that a large portion of them comes into the pockets of the farmers and manufacturers of the upper Western states? As his means increase, the sugar planter makes a more ample provision for the support of his family and labourers; the comforts of the negro are increased, by the allowance of a larger proportion of better food. By these addition to the expenses of theplanter, the Western farmer and mechanic are benefited. When enabled to obtain better, the planter is no longer contented with the homely furniture of his first establishment. Orders are given for more costly and elegant articles. And on what places are the orders given? Not on London or Liverpool, or even New-York or Philadelphia; but on some city on the Ohio. And this is one, not by any means the least, of the vents for those splendid articles which are poured out in such quantities, from the shops of our Ward's, Porter's, Lethman's, Skinner's, Lee's, James', and hundreds of others. The trade to the lower Mississippi, is peculiarly beneficial to farmers on the Ohio and its navigable tributaries. From their situation, hundreds, I may say thousands, are enabled to dispose of their products in that distant, but convenient market, without an intermediate sale to a merchant, or the, employment of a factor or carrier. They manage the whole matter of transportation and sale themselves. Effecting the latter immediately to the consumer upon his plantation, or the exporter at New-Orleans. There is not one that has engaged in this business, that does not know, that it is frequently the want of the means of purchasing, which prevents the planter from buying a whole boat load of provisions rather than a small portion of one; and that if he would take sugar and molasses from the planter in exchange for his own commodities, he could sell the latter at a higher price, and obtain the former at a cheaper rate than by cash sales. This fact was stated to me a few days ago, by an intelligent farmer of my neighbourhood who has for many years been engaged in that trade; and shews that the planter finds great difficulty in disposing of his crops, even at the most reduced prices, and that he is willing to reduce them still lower to obtain the produce of our soil. If the facts I have stated are true, and the deductions I have drawn from them correct, it would appear very extraordinary, that any Southern or Western man should have supported the proposition to remove the protecting duty, and place the sugar planter of Louisiana precisely upon a footing with those of Cuba, in which island all the products of the United States are subjected to a most onerous duty, which in relation to some of them, almost amounts to a prohibition. Apart from the impolicy of taking off the protecting duty, the measure, to the people of Louisiana, would be full of injustice. Their cultivation of sugar was commenced under the protection of the duty, and there was nothing that could have indicated any change in the policy which dictated it. Protecting duties are given in every instance where they are necessary to the staples of the other states; to the tobacco of Virginia and Maryland, the hemp of Kentucky, the wool of Ohio, and why not to the sugar of Louisiana? [To be Continued.]

ART. CCV.—*Miscellaneous, Original and Selected.*

American Silk.—We had the pleasure a few days since of examining a fine specimen of American sewing silk from Mansfield, Con. The gentleman who exhibited it has upwards of 10,000 skeins, for which he finds a ready sale at about $8.50 per lb. He informs us that about *five tons* have been raised in Mansfield alone this season, and the culture is rapidly extending in Coventry and other neighboring towns. One gentleman in Connecticut last year paid $1500 for white mulberry trees, with which he has set out an orchard of one hundred acres. About 1000 bushels of cocoons were sent to Philadelphia last season, and were sold at $3 per bushel. Competent foreigners are now setting up machinery in Mansfield for spinning and weaving the raw article, which has made a great demand for cocoons, and given a spur to the business. By means of machinery introduced a year or two since, the value of the raw silk has been enhanced $1 per lb. The business is managed almost exclusively by females, requiring *very particular* attention for only about two weeks each year. The sales of sewing silk in Mansfield alone this year are estimated at upwards of $85,000.—*N. E. Far.*

Effect of long Abstinence on Cattle.—A cow which had been missed by her owner, in Boston, twenty-five days, was found in a barn not in use, in that neighborhood. She had nothing to eat in all that time, and was reduced to a skeleton.—It is stated that when she strayed, she was supposed to weigh over 900lbs. and when recovered that she weighed only between 2 and 300.

Substitute for a Razor Strap.—Take a piece of cast steel, (an old saw file will answer very well,) get it made into a cylindrical form, and as smooth as fine sand or glass paper can make it; but not polished. Moisten its surface with oil, and having had your razor previously well honed, but not strapped, apply it to the steel, edge foremost, and with a little practice it will obtain an edge, far superior to that by any other strap. This of course, as well as the hone, will no more be wanted.

For lancets and surgical instruments, a flat surface of steel is best.—*Western Tiller.*

Horse-power.—A new mode of applying horse-power to move machinery has lately been discovered by E. GEO. PAGE a citizen of this town. The horse

is mounted upon a band made of leather and narrow pieces of plank, and this band passes round two cylinders or drums, about two feet apart, the axles of which are horizontal, and one of them higher than the other. The band is supported by small wheels, which run on a rail way placed under each edge. The harness of the horse is attached to an immovable post placed near the lower cylinder. When made to draw, the band moves backward under him; the moving of the band causes the cylinders to revolve, and a gear being attached to one of them, motion is thus communicated to the machinery. It can be used to move machinery constructed for almost any purpose, but will probably be most used to propel boats on rivers. It has not, as yet, been applied to any purpose but sawing wood, and this it performs with great expedition. With two men to tend it, the proprietor informs us, he can saw *thirty* cords of a mixture of soft and hard wood in a day, cutting it twice in two. The expense of the band and other necessary machinery is not great.—*K. (N. H.) Sent.*

Plants not poisonous.—1. Plants with a *glume* calyx, never poisonous. As Wheat, Indian corn, Foxtail grass, Sedge grass, Oats. *Linneus.*

2. Plants whose stamens *stand on the calyx*, never poisonous. As Currant, Apple, Peach, Strawberry, Thorn, *Smith, p.* 392.

3. Plants with *cruciform* flowers, rarely if ever poisonous. As Mustard, Cabbages Water-cress, Turnip. *Smith, p.* 487.

4. Plants with *papalionaceous* flowers, rarely if ever poisonous. As Pea, Bean, Locust tree, Wild indigo, Clover. *Smith, p.* 446.

5. Plants with *labiate* corols, bearing seeds without pericarps, never poisonous. As Catmint, Hyssop, Mint, Mother-wort, Majoram. *Smith, p.* 434.

6. Plants with *compound* flowers, rarely poisonous. As Sunflower, Dandelion, Lettuce, Burdock. *Milne.*

Poisonous Plants.—1 Plants with 5 stamens and one pistil, with a dull-colored *lurid* corol, and of a nauseous sickly smell, always poisonous. As Tobacco, Thorn-apple, Henbane, Nightshade. The degree of poison is diminished where the flower is brighter colored, and the smell is less nauceous. As potatoe is less poisonous, though of the same genus with nightshade. *Smith, p.* 415.

2. *Umbelliferous plants* of the aquatic kind, and of a nauseous scent, are always poisonous. As Water-hemlock, Cow-parsley. But if the smell be pleasant, and they grow in dry land, they are not poisonous. As Fennel, Dill, Coriander, Sweet-cicely. *Smith, p.* 416.

3. Plants with *labiate* corols and seeds in capsules, frequently poisonous. As Snapdragon, Foxglove. *Smith.*

4. Plants from which issues a *milky juice* on being broken, are poisonous, unless they bear compound flowers. As Milkweed, Dogbane, Milne's Contortæ and Lactescentia.

5. Plants having any *appendage* to the calyx or corral, and twelve or more stamens, generally poisonous. As Columbine, Crowfoot. *Linneus.*

The Curculio.—There are to be seen in the public garden kept by Mr. Smith, in this village, several plum trees, of different kinds, heavily laden with fruit, upon which there does not appear any marks of the curculio, although the plums in the neighbouring gardens have all been destroyed by them. This garden has been kept open during the warm season, for several years past, as a place of public resort, for eating ice cream, &c. and has been lighted up with open mouthed glass lamps during the fore part of each evening. The ground as usual in such places is laid out into walks and plats. The plats are planted with ornamental shrubbery and flowering plants, amongst which stand the plumb trees referred to, and visitors are not allowed to tread upon the plat.—*Genesee Farmer.*

Wheat Crop.—We have taken some pains to ascertain the situation and prospects of the wheat crop, as to quality, quantity, &c. Farmers that we have inquired of, since the harvesting was finished, vary in their opinions as to the quantity of the last, compared with former crops, some estimating it at half, while others think the last may be two thirds of an ordinary crop in quantity, but there will also be a deficiency in quality, as most of the wheat from strong lands is shrunk and some of it is a little grown in consequence of the continued wet weather during harvest, We have also made inquiries respecting the advantages and disadvantages, of different kinds of wheat, and the proper soil for each. These inquiries have not as yet, been answered as satisfactorily as we could wish, but appear to be in favour of sowing the large flint wheat, upon strong lands, and the farmers mostly agree that it is not as liable to be injured by the fly, neither as apt to fall down as the red bald wheat, and that it will not sprout as soon in wet weather. On light sandy soils, it seems to be the prevailing opinion that the red bald wheat is most profitable.—*Genesee Farmer, August* 12.

Crops in England and Portugal.—[From English dates of July 12.] The accounts of the state of crops from all parts of England, are of the most favorable description, in consequence of the late fine weather.

The banks of the Tagus have again been overflown this season, and the corn on the low lands destroyed to an immense extent. An almost continual rain of nearly three months prevailed, and ceased only about the latter part of June.

New-York Cattle Market, Monday, August 22.—About 500 head of cattle, at an average price of $6. 25—Sales brisk. About 600 sheep, (mostly lambs) average $2—

No Swine.

Milch Cows, a few, commanding prices not varying for a few past weeks.—*Hay*, at 62½ to 69 cts per hundred.

New York Produce Market, August 24.—Cotton, market languid, New Orleans 10 to 12, Upland, 7½ to 10; Feathers, 36 to 37½; Flax, 8; Flour, supplies come in slowly, N. York superfine 5 25, Troy 5 25, to 5 50, Ohio 5, to 5 12½; Rye Flour 3 62½ to 3 75 Indian meal 3 62½ to 3 75; Wheat, N. River bush. 1 12 to 1 15; Rye, Northern 78 to 80; Corn, yellow, 73 to 75, white L. Island and N. Jersey, 75 to 77; Oats 35 to 41; Plaster Paris. 3 75 to 3 87 per ton; Beef, mess. 7 75 to 8 50, do. prime, 4 75 to 5 25; Butter, N. Y. Dairy 13 to 15; Pork, mess, 14 to 14 75, do. Prime 11 to 11 50; Wool, merino Am. flec. lb. 45 to 75, do. pulled 45 to 65, common 25 to 35, pulled, spinning 50, lambs, 1st quality 60 to 62, 2d do. 45 to 48, 3d do. 30 to 35.

[For the New-York Farmer.]

ART. CCVI.—*Method of Hanging Large Gates.* By D. T.

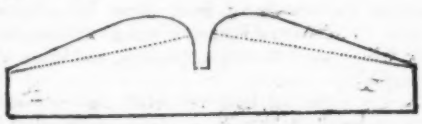
To hang a large gate which shall fasten itself in the best manner is a problem deserving of some attention.

The old fashion was to let the gate strike the post and latch itself. It was found however, that the post soon leaned, chiefly in consequence of these repeated jarrings, and in a few months the gate was more or less out of order.

To prevent this jarring another plan was adopted. The gate was made to swing by the post freely in either direction without striking, and the latch successively passing up the inclined planes, till the impulse was destroyed by repeated oscillations, at last drop in the notch.

As long as the gate-posts retain their true positions, this was found a great improvement, but *the notch was so narrow* that a slight obliquity kept the latch from fastening, unless it was assisted by the hand.

To save this trouble more especially to horsemen, and to insure against carelessness, I have lately had a fastening made which is represented in the figure, and I am pleased with the experiment. The old gate settles one inch from the notch, but *the curves form an opening of nearly four inches wide*, and the latch never fails to drop in, except it be delayed a few moments by the wind. When the latch is even put at the bottom of the inclined plane, the gate is so far from its place of rest, as to raise the latch up the plane by its pressure.



The figure shews both kinds of fastenings. The greater the velocity in swinging, the higher will the latch strike on the opposite curve, and the more glancing will be the stroke, so that the jar is in all cases, trifling.

The figure represents a piece of plank one foot long which is spiked to the post. The latch runs on an iron strap, which is fastened in the notch, bends round the curves, and extends down the planes.

D. T.

[For the New-York Farmer.]

ART. CCVII.—*Remarks on the criticisms of Horticultural Exhibitions.*

I Guess. MR. FLEET, that your very sensible, humorous, and shrewd Correspondent, I 'GUESS,' in the Farmer of August 18, is a Gardener, and a common-sense sort of a man, who has quite as much knowledge of the 'crabbed names' of sientific Botany, (independent of the books) as the very erudite Mr. 'Q', of the 'Genesee Farmer'. They sport very pleasantly, however, and in a way that, while it is rather amusing, and some what instructive, can do no harm. 'Q' by broaching the subject, will teach some persons a useful lesson, at least on the score of pedantry, too much parade of learning, in these Horticultural affairs, perfectly repulsive, and disgusting to 'unliterated,' your uninitiated practical men. He overshot his mark, and is fair game for 'I GUESS', who tellshim, as he ought, that Horticultural Societies ought to be principally made up of plain practical cultivators. In several respects, the good sense of your Correspondent is doing much toward a correct and proper understanding of the business of Horticultural Societies, as when he tells 'Q,' that it is *abundance of good things*, and not *few, alone*, that is to ingage their attention. They are not a Class, in the study of theory in Botany, but a *class of men*, who are labouring to increase the supplies of good, and elegant, and choice things for our market, as well eatables, as flowers, &c., by which they seek to make a living for themselves and families. Would the critic of the Genesee Farmer have a Library of Floras, Vocabularies, and Books of Botany at hand, in every room where their Societies hold their meetings, so as to make the names as long as possible? Or would he confine these exhibitions to some room of a college? To make this case very clear, let me ask, where is there, in this State, a single individual, who from his head alone, without books, can give the genus, and species, accurately, of every vegetable, fruit, root, flower, plant, shrub, tree, which are occasionally seen, congregated at our Horticultural exhibitions? You may find them who will give many, but no one, especially if he lay claim to the character of a sientific Botanist, would write out a catalogue, and let it go to press, without first consulting, and comparing it with his books! I put this distinctly to 'Q,' of the Genesee Farmer. Could he do it? I guess not: nay, that, in writing his criticisms he consulted the books quite as often as 'I GUESS' did, in replying to him. Men of sense are not always men of learning, and the most learned are least prone to make an idle display of unnecessary literature. It is unlearned men, anxious to mount on stilts, by the aid of the books, that fill these Horticultural accounts with so much that is uncalled for, useless pedantry.

WONER.

ART. CCVIII.—*Hints on the most Economical Manner of Feeding Horses.* [Continued from page 207.]

In this last stable, as well as in all others, where the same system of feeding is practised, the following method of mixing up the materials of the food is observed. The cut hay is first laid on the floor of the barn or loft, over it is the bran, next the bruised or ground beans, and lastly the other ground grain. All the substances are then tossed together, and, thus prepared, the provender is ready for use.

Although we have thus detailed the method of feeding cart-horses in some of the best managed stables of London, we are more enclined to direct attention to the plan followed by Dr. Sully of Wiveliscombe, in Somersetshire. This gentleman has for more than 20 years, successfully pursued the plan of feeding which we are about to detail. Its utility and economy are apparent, and we feel confident that it may be generally practised with advantage.

Dr. Sully says, that his horses employed in his professional practice, and accustomed to travel at the rate of eight miles an hour, "from the great labor the un-

dergo, have no sinecure place, and yet few people can boast of cattle being in better condition." In his stable there are no racks to hold the hay. He objects, and we think with the greatest reason, to employing them. In the first place, the groom, if the stables are fitted up with racks, will always fill them, and by so doing tempt the horse to eat too much, thus overloading his stomach; so that when, in this full distended state, he is taken out of the stable and put to work, his wind will be endangered. And not only does the full hay-rack often occasion this injury to horses, but it is the cause of great unnecessary waste of provender. It must have frequently been remarked by those who have entered a stable, that all the horses, when they have the command of their head, pull the hay out of the rack and throw it under their feet. This is purposely done, that the more tasty portions of the hay may be selected for food, and the rest rejected. Few, if any, grooms will replace in the rack the hay that has been thus refused, and a great waste of it necessarily ensues. It is Dr. Sully's opinion, that a horse with a well filled rack will consume and spoil upwards of 30lbs. of hay in 24 hours. But when it is cut down and mixed with a due proportion of cut straw and bruised or coarsely ground oats, or other grains, 10lbs. are sufficient.

The details of Dr. Sully's manner of feeding his horses are worthy of imitation, combining, we conceive, convenience and economy of time and labour. In the loft above the stables, are prepared the portionable quantities of food with which his horses are daily supplied, and a very simple method has been devised to convey it when mixed into the manger of each horse. A wooden pipe is made to pass from the loft into each of the mangers, and close by the mouth of the pipe in the loft is placed a tub of size enough to contain what is sufficient food for a horse for 24 hours. To prevent the horse, in searching for the grain, from tossing out of the manger the mixed food which is dropped into it, oaken cross-bars, about 12 inches distant are nailed over it. Between these bars ample space remains for the horse to feed.

As there can be no dependence on the measured quantities of grain or other food given to the horse, from the variation at times in the respective weights of equal quantities, Dr. Sully recommends, and indeed regards it as necessary, that grain of all kinds, and also the cut hay and straw, should be carefully weighed. When all the ingredients are so prepared, the proportions for each horse are allotted. From the table which follows will be seen the different articles of food, and the quantites and weight which the horses should receive.

	1st Class.	2d Class.	3d Class.	4th Class.
1. Farinacious substances consisting of bruised or ground Beans, Peas, Wheat Barley, or Oats, -	lb 5	lb 5	lb 10	lb 5
2. Bran, fine or coarse, -				7
3. Boiled or steamed Potatoes, mashed in a tub with a wooden bruiser, - - - -	5	5		
4. Fresh grains (boiled barley.)	6			
5. Hay cut down into chaff, -	7	8	10	8
6. Straw cut down into chaff,	7	10	10	8
7. Malt Dust or ground Oil-cake.		2		
	30	30	30	30

With two ounces of salt for each class.

By this table it will be seen that each horse receives 30lbs. of food in 24 hours, a quantity which will, in all cases, be found to be amply sufficient. The addition of 2 ounces of salt is necessary to assist the digestion of the food. All herbivorous animals, as is well known, in their wild state, indicate the necessity or utility of this condiment, by resorting wherever it is to be met with in those places where native salt exists. In the vast forests of America, where rock salt abounds, those spots are called by the natives Salt-licks, from the wild cattle resorting to them to lick the salt. In Cheshire, and the salt district of that county, there is a farm which is noted for the excellence of its cheese. On this farm is an excellent salt spring to which the cows daily resort, and by many it is believed that the tasting of this brine by the cows adds to the flavour of their milk.

In the last number of the Journal, the value and uses of this important condiment are fully treated of.

Of the four classes of which Dr. Sully divides his ingredients for feeding, those two which contain the steamed or boiled potatoes are the most recommended. No food conduces more to the healthy working condition of horses than the steamed or boiled potato; and we may observe, with relation to this, as well as of other kinds of food, that when the horse comes in weary and hungry, after a long day's work it is necessary to fill his manger more copiously with the ingredients prepared for him.

In determining what kind of food shall be given to the horse, and in what quantity it shall be supplied, particular circumstances must often be allowed to operate. Violent and long-continued exertion, for example will require the strongest food, and large allowances of it.

It will be apparent, however, in the several instances before adduced of the most approved methods of feeding horses, that although these methods may differ in certain essential points; and it is to these that we wish, in an especial manner, to direct the public attention. The methods it will be seen, all agree in the practice of invariably bruising or coarsely grinding the grain and beans, in cutting down the hay and straw, in giving no hay in the rack, in allowing salt, and in weighing each article separately, before mixture, in place of adopting the fallacious guide of measurement.

Having thus very imperfectly endeavoured to point out what is conceived to be the best method of feeding horses, it is unnecessary to dwell on the various advantages which such a system offers.

As the horse advances in age, his teeth gradually lose their perpendicular position, and becomes less fitted for grinding the hard food which the nature of his work, and the artificial situation in stables, render it necessary for him to receive. His mastication is rendered imperfect, and the grain, when given him bruised or ground, is often swallowed entire. And as the saliva and the gastric juice of the stomach are held to be the solvents of the food, and as more perfect mastication must allow these to act with more effect upon it, a more perfect digestion, we may believe, is induced by giving the grain in the bruised or ground state, and by the cutting down of the hay or straw. Thus, not only must the practice be conducive to the health of the horse, but it must produce a great saving of the food. To persons requiring constant and steady work from their horses, the advantages of the practice are very obvious.

The carrier, with his horse-provender weighed, mixed, put into a bag, and carried with him, can feed and refresh his horse at all times and places. The same observation applies to the farmer, and more strongly still to the post-master, whose horses have sudden calls upon them for great exertion. By means of provender so prepared, his horses soon fill themselves, and thus have time to lie down, sleep, and rest. To the gentleman and sportsman such a plan of feeding has also many advantages. The health of his horse is promoted, and the economy of its provender assured. The following are the words of the intelligent, humane, and experienced gentleman whom we have already quoted. "My business," says Dr. Sully, "extends through Somerset, Devon, Cornwall, Dorset, and Wilts. I travel with single horses on one pair of wheels, and, by relaying, I am enabled then to cover more ground with four horses than any man I know in England, besides my pace is seven and eight miles an hour, and my servant, who always accompanies me, generally puts in a bag of provender of coarsely ground grain, and cut hay and straw. I am certain the same plan will eqnally succeed with horses, coach or saddle."

Although we pride ourselves in Great Britain, and very justly, on the beauty and excellence of our horses, yet how superior socver we may be in this respect to our continental neighbours, we do not surpass them in knowledge of stable-management. Those who have visited that portion of Switzerland which borders on Germany, must have witnessed the skilful manner of feeding horses. No grain is given to these animals without its due proportion of cut hay and straw. The hay-cutting machine is in very general use in this quarter of that delightful, romantic, and industrious country; and it is not only employed for the horse, but also for the cow. During winter, along with different kinds of roots, as the carrot, the turnip, the parsnip, chopped up, a quantity of cut hay is mixed for the cow. If we pass from Switzerland into Germany, we observe the same, and perhaps greater attention to the food of the horse. To all the grain he receives, a portion of cut hay and straw is always added, and, it may be remarked, that it is not uncommon, while on a journey, for a Swiss and German horseman to feed his steed, with coarse brown bread, half-a-pound or more at a feed.

But it is unnecessary to go out of our own island for examples of good and economical modes of feeding horses; to the instances we have quoted, of the manner of treating them in certain stables in London, many more might be added; and if we travel the roads leading to the south from that great city, we shall find innumerable examples of the same good management. S. M.

ART. CCIX.—*Description and Productions of the Mineral Country of the Upper Mississippi.*

The following is from a letter, written by Caleb Atwater, Esq. who was connected with the agency for making the Indian treaties ratified by the Senate last winter.

Washington, Jan. 1, 1831.

The treaties with certain Indian tribes, for the cession of the mineral country on the Upper Mississippi, are ratified by the unanimous consent of the Senate. By these treaties the United States have acquired 8,000,000 acres of land, equal in all respects to any in the Union. The climate of this region is equal to that of Italy, such is the purity of the air. When travelling along the road to Galena, on Feaver river, I could distinctly see a wagon and team five miles off, with the naked eye. This purity of atmosphere may be attributed to the total absence of marshy ground and to the elevation of the country, which, after leaving the Wisconsin and Mississippi rivers, and ascending to the common level of the country, is by my computation, about 2,000 feet above the sea. The absence of dens forests all the way to the Rocky Mountains and to the Frozen Ocean—to which it may be added, that the mineral country is beyond the influence of the great northern lakes—may, in part, account for the purity of the atmosphere.

The streams of this region, copiously and briskly gliding over pebbles of cornelian, topaz, jasper, agate, opal and quartz, are as pure as chrystal. Originating in springs, they are cool enough for drinking in the hottest day in August. The Mississippi from Rock Island to the mouth of the Wisconsin a distance of 200 miles and upwards, and which forms the Western boundary of the ceded territory, is on an average, about three-fourths of a mile in width. The fish are abundant, of fine flavor, and furnish food for the Indians on the western shore of that beautiful river.

The Wisconsin is about half a mile in width, and at a low stage of water, is shallow, and full of sand-bars. When I ascended it about 90 miles from its mouth, it presented to view, far as the eye could trace, wild rice in bloom. The scenery along its borders exhibited views most impressive, and always either beautiful or sublime.

Rock river and its branches irrigate and fertilize a large tract of country. This river originating in pellucid lakes and copious springs, runs off gradually, and neither rises very high nor sinks very low during the year. Ninety miles above its mouth, where I crossed it on the first day of last September, it appeared to be about twenty rods wide, four feet deep, and ran with rapidity. The branches of this river, the Picatolica, Sugar creek, &c. are the finest streams for mills of every kind in the world. The sands of Wisconsin are as white as mountain snow.

The surface of the country is gently undulating, and, in most places, is covered with grass and a succession of flowers from early spring to late autumn. One week you see as far as the delighted eye can reach, flowers of a reddish hue;—the blue, the white, the yellow, every shade indeed, follow in succession week after week—ever varying, ever new, and always delightful.

The trees of this region are confined to the banks of the water courses, and to rough places; and oaks, red, white and black, are the most common growth in high grounds, while in wet ones, the botany is richer.

The mounds are lofty piles of rocks, in their natural position, except such as have fallen downwards from their summits. These piles lying in horizontal strata, are very elevated, and may be seen in any direction.

I have already mentioned the most common birds of this region, and the beasts are few indeed now, having been destroyed by the Indians, except the black wolf, the prairie wolf and musk rat. The black

wolf, too numerous I fear for sheep at present, is confined to the groves and the streams. The prairie wolf is more common than any other animal in this district of country. Apparently half way between the black wolf and gray fox, he is the Jackall of America. Not over nice about his food, he eats every thing almost within his reach; insects of every kind, grasses and birds, their eggs, and pigs and poultry, please his taste and satisfy his appetite. From Prairie du Chien to Peoria lake, a distance of 400 miles as I traveled the route, every night when I lodged out of a settlement, I was assailed with the shrill barking of this animal: he approached within a few feet of me, and roused me from my slumbers. He is without exception, the most mischievous little animal in the world—robbing henroosts, pig sties, farm yards and barns wherever they exist.

The muskrat is confined to the lakes and streams, and I have a beautiful drawing of one taken in that country, by an artist residing at Gratiot's Grove.

Having briefly described what appears on the surface of the earth, I will, as briefly, describe what is below it. This region contains the richest lead mines in the known world. You are aware, sir, that although these mines have been worked only about three years, by comparatively few persons, under every possible disadvantage, almost thirty millions of pounds of lead have been made there! The mineral used by the miners is a sulphuret of lead yielding from 56 to 87 per cent of pure lead. It is found in veins invariably running from north to south, or from east to west. There is one vein twenty rods long and sixty feet wide and extending downwards to an unknown depth, filled with ore that is nearly pure lead.

The lead ore occupies about 100 miles square of surface, except about 20 miles by 4 or 5 of copper ore, included with the aforesaid 100 miles square. Thirty millions of pounds of lead have been made in the mineral region, and from what I saw, I should suppose that not one mile square of surface had been opened for ore! and further, I can say, that without opening one new mine, thirty millions pounds more of lead might be made there. And I can further say, without any doubt of the fact, that the country now ours by the late treaties, will forever afford lead enough for this nation at as low a rate as can be desired. I will not descant upon the advantages in peace and in war, to be derived from these mines. I leave that subject to the statesman, the merchant, the manufacturer and the patriot.

A strip of land, 20 miles by 4 or 5 miles, is filled with a sulphuret of copper, 170 tons of which had been dug before I left that region, on the 1st of September last. Not having been melted, its value is not tested, though it appearance indicates a rich copper ore.

The soil of this region is a rich, deep, black loam, and reminded me of the Hermitage, on the banks of the Cumberland—of the central parts of Kentucky—of Pickaway Plains, near me, on the delightful banks of the slow-winding Scioto—and of the Miami country in Ohio. Indian corn, potatoes, oats, all the garden vegetables—indeed every tree, plant and shrub which grows in the same latitude, flourishes surprisingly.

The climate is the healthiest in the world, and I saw no person in that country not in high health, except such as worked in the furnaces, the smoke of which is injurious to health.

These treaties have given, or rather will soon give to this Union, another great and flourishing state, larger in size than Virginia, because surrounded as the Indians soon will be of that region, they will retire beyond the Wisconsin: but a few years will pass away before they will cross the Mississippi, where the elk, the deer, the bison, the otter and the beaver invite them.

On the upper Mississippi will soon exist three states, each larger than Virginia. These three states will within fifty years contain three milions of happy human beings. Two of these will lie on the western and one on the eastern side of the Mississippi.

Art. CCX.—*Reeling and Spinning Silk.*

Some writers assert that the winding of the fibre from the cocoons is very simple and perfectly easy Mr D' Homergue, who has established a silk filature at Philadelphia, considers the winding to require the utmost care and attention.

It is admitted by all, that the perfection of raw silk consists in the quality of its thread. The fibres extracted from the cocoons is of an exquisite fineness; so fine indeed, that one single fibre cannot be used in any kind of manufacture. A thread of two fibres is sometimes reeled in Europe, but very rarely and only for works of extreme fineness. Raw silk is generally reeled from four to five and twenty cocoons, according to the degree of fineness that is required. For coarse stuffs and sewing silk, it is spun from as high as forty fibres still according to the fineness of the thread wanted.

The equality which constitutes the perfection of raw silk, consists of the thread being spun throughout as nearly as possible of the same quantity of fibres, or of their equivalent. We say their equivalent, because as the silk increases in fineness, that is to say, the fibres diminish in size as the reeling advances towards the inside of the cocoon, until at last they become almost imperceptible, it will happen that at certain stages of the reeling, two and sometimes three fibres will only be equal to one. The eye or the hand of the reeler must discover at once, and immediately supply the requisite number of fresh cocoons, and neither more nor less than is wanted, otherwise the silk will be unequal, as it is called, irregular—and, in proportion to that irregularity, will diminish in value, or even be entirely worthless.

Now, the reason which makes it necessary that silk should be thus regularly reeled to be marketable is the following. Silk is not manufactured in its raw state, it must be submitted to the operation of *throwing*; that is to say, winding and twisting by machinery. Irregular silk can with difficulty be wound, it gets entangled and breaks in the operation, by which considerable waste is suffered. The same thing happens in twisting. The twisting machine works by a regular and equal power, which cannot be increased or diminished at pleasure.—If the silk is unequal, the same force which only twists the strong part of the thread, will break the weak ones, and waste is again the consequence. In proportion to the waste that it suffers in throwing, is the value of the silk; beyond

a certain proportion or per centage, it is either of little value or altogether unsaleable.

Hence, principally arises the difficulty of reeling silk, which indeed is so great, that there are but two countries in Europe, where that art is practised in its perfection—the north of Italy and the south of France.

ART. CCXI.—*New Chinese Mulberry.—Morus Multicaulis.*

This newly introduced variety of mulberry for feeding silkworms is undoubtedly an important acquisition, and more particularly so to this country where silk is on the eve of becoming a staple article of production. The Editor of the American Farmer has had this variety under cultivation for two years, and has made himself acquainted with its peculiarities both as to quality and the manner of cultivating it. Not having a sufficient quantity for a full trial of feeding silkworms with it, he has been obliged to confine his experiments to occasional feedings, at which times the worms promptly left the Italian white mulberry leaf and devoured the new Chinese with avidity. The leaves of the new mulberry frequently measure a foot in length and ten inches in width. Indeed Mrs. Parmentier, the lady of the late Andrew Parmentier of Brooklyn nursery and garden, who has 1600 of the trees for sale, in a letter to the Editor says, that some of the leaves on the trees of that establishment measures 13 inches in length, and that the worms left six different kinds of mulberry to feed on them. Although the number of leaves on a tree is not so great as that of those on the white, we should judge that the weight of the leaf was much greater—it is so great in fact that during a rain or after a heavy dew, the young trees are bent almost to the ground by the weight of their foliage. This mulberry bears no fruit or rather it is so minute and so small in quantity that the propagation of it from seed is never practised. As this mulberry does not grow high, the leaves can always be gathered by hand from the ground without the aid of ladders or the danger attending the climbing large trees. They can be planted pretty close together, and we should judge that an acre of ground would produce more foliage with this than with the white mulberry. The morus multicaulis being as yet quite scarce in this country, they sell high: but every one who contemplates cultivating silk should obtain a few, and by laying them down in July, multiply them. By this means ten trees obtained this fall, would, in five years, produce one million of trees, allowing each one to produce ten every year, which we are convinced they will certainly do, that is in the fall of 1832 there will be 100; in 1833, 1000, in 1834, 10,000; in 1835, 100,000; in 1836, 1,000,000—and these we have no hesitation in saying would produce ten times as much foliage as could be produced with the same expense and labour in the same time, of the white mulberry or any other kind. We hope editors in the country will give free circulation to these facts, that the cultivators of silk, and those who contemplate entering upon that business, may avail of the advantages of this mulberry in commencing their orchards. The morus multicaulis can be obtained of Wm. Prince & Sons, at the Linnæan Botanic garden at Flushing, New York, of Mrs. Parmentier, at the Horticultural Botanic Garden at Brooklyn, N. Y. and of the Editor of the American Farmer. They are generally sold at one dollar each.

ART. CCXII.—*Proceedings of the New-York Horticultural Society.* [Continued from Page 209.]

August 30.—Mr. Hogg presented a beautiful bouquet of flowers, of which were Sagittaria sagittifolia pleno, Asclepias curassavica? Bouvardia triphylla, Salvia splendens, Hemerocallis japonica, Delphinium chinense, Champney's cluster Rose, new seedling purple Dahlia, and others.

Mr. Floy, several fine Dahlias, among which were George the Fourth (scarlet,) Triumph royal (crimson brilliant,) Miller's invincible (very dark,) large Rose Anemone, Princess Victoria, alata triflora—Funchia alba, Hibiscus rosa sinensis, very fine Balsamine panaché, &c.

Mr. Henry Mackin, gardener to B. D. Perkins, Esq. of Flushing, a very beautiful bouquet of flowers, consisting of a fine seedling richly colored Dahlia (Perkinsonii,) double Balsams, Oleander splendens, Phlox pyramidalis, Amaranthus tricolor, 4 very large handsome dwarf deep crimson Cocks comb (Celona cristata var. compacta;) and a very superior flavored Pine Apple Muskmelon, weighing six pounds and two ounces.

Gideon Lee, Esq. half a bushel of well ripened White Chasselas Grapes.

R. Dyson, 6 very fine Golden Nectaries.

Mrs. Parmentier, of Brooklyn, Monthly strawberries without runners, Belle et Boune French pear, Chasselas Royal, Imperial Tokay, Black Gainet, Barberouse, Miller Burgundy, and Meslier of Champaigne grapes; also Lufborough grapes—an American native production. Large lemon grapes, some leaves of Morus multicaulis, a species of mulberry introduced by the late Mr. Parmentier, varieties of the double Dahlia, Robinia tortuosa, Salix annularis or ring willow, varieties of the monthly Rose, Verbena Aubletia, Yellow centre noisette Rose, Variegated mint, Liriodendron integrifolia, Gloxinia speciosa, Double buff Chinese Hibiscus, Double crimson, do. Musa coccinea, scarlet flowered Plantain tree from Italy, Delphinium spurium, Double Nasturtium, Crinum uniflorum or Cyrtanthus uniflorus? from Mexico.

ART. CCXIII.—*An address delivered before the Hamilton County Agricultural Society, at their annual exhibition, held on the 15th and 16th of June*, 1831. [Continued from page 206.]

It appears to me that the period has arrived for greatly curtailing the expense of fencing in the more populous districts of the state. This object is to be accomplished by prohibiting swine from running at large. It has hitherto been resisted, upon the ground of injury to the poor. That this is a mistaken notion, in those places where the country is as generally enclosed as in the county of Hamilton, I am quite certain. It is very rarely the case, that hogs running at large have any other legitimate resource for food,

than a miserable pittance of grass collected in the corners of fences or by the way side. All that they otherwise obtain, is by highly injurious depredations upon fields from which they are intended to be shut out, and which very often are not the property of their owners. But with all that they may acquire in this way, when the season for putting up arrives, it requires more grain to fatten them than they are worth. I am convinced, that ten hogs kept in that manner, will not yield as much as two closely confined, and well fed. My friend Col. Ferris, late of Cincinnati, informed me that he purchased four pigs in the market of Cincinnati, put them in a small pen, bought all the corn which was fed to them, of which he kept an accurate account; he kept them six months and then sold them, and after deducting the first cost and the price of the food they had eaten, he found he had made twenty dollars clear profit. On the 2d of September last, I took two hogs from a lot I had just purchased, and confined them in separate stalls; where there was not room enough for them to turn round and only just enough to rise up to their food, and then lie down. They were each accurately weighed when they where put up, and again weighed on the 3d of November following, when it was found that the per diem increase of each was upwards of two pounds, one of them reaching a fraction above two pounds two ounces. They were fed much as they would eat, with boiled purslain, or pumkins, thickened with Indian meal, and with dry corn. I did not prefer the corn in that shape, but I could spare them no more of the prepared mess, without depriving my other hogs of their proper share. I do not however attribute this uncommon increase to the kind of food, but to the constant state of repose the animals were in after they had satisfied their appetites. This circumstance has long been known, to be highly favorable to the fattening of any of brute animals, and particularly the hog.

In the large hogstyes in the vicinity of the city of Mexico, where many thousands of those animals are fattened, it is said that boys are employed to sing to them after they have been fed, as a means of lulling them to rest. Whether the effect is produced by this means or not, it is evidence of the general prevalence of the opinion which I have advanced. If such advantage is to be derived from keeping hogs confined in styes, would not every description of people engaged in agriculture, be benefited by preventing them from running at large; in those parts of the country which are thickly settled, I mean; for, although swine reared in close styes make much the best pork, the article which our Eastern friends are said so much to delight in,—and which prepares the fish and the vegetable mess for our gallant tars, it is by no means the best to make that article,

"Though with green peas, a dish exceeding fine,"

and with which our county men, Messrs. Pugh, Gano and Lee, have for several seasons, tickled the palates of our frieuds in Baltimore. Such pork would even baffle their art and that of Mr. Reynolds united, to make bacon of the first quality. For that purpose, they must have hogs that have enjoyed the blessings of liberty and exercise, at least a large portion of their lives.

A neighboring gentleman, of Kentucky, observed to me early last summer, that his sheep had become very indifferent, and that he was determined to sell them and buy others. I know that the rams were suffered to run constantly with the ewes, and that the lambs were dropped in the midst of winter when the ewes had no succulent food, and could give little or no food, of course, that when the spring arrived, both the mothers and their offspring would be in a state of poverty, from which they could scarcely recover before the return of winter. I recommended to him to endeavor to resuscitate his flock, by separating the males from the females, until the month of October, and use more care in the selection of the former. This was immediately done; and the result has been, that his ewes are at this time in finer condition, have yielded a good crop of wool, and his lambs are better than any in the neighborhood. The other fact to which I referred, is, that a merino flock of sheep had been kept at North bead, upon the same pasture every summer, for six or seven years, and instead of depreciating have manifestly become better.

The same favorable result will be produced in constant and judicious selections of feracious grains. If a farmer will always carefully pick out his best ears of corn and his best ears of wheat for seed, his crop will always be of good quality. I admit, that changing the ground, by a rotation of crops, is necessary to produce good grain; but it is perfectly immaterial whether the seed, which is to be sown, has grown upon an adjacent field, or at the distance of one hundred miles, *provided it be good.*

This admission of the necessity of a rotation in crops, may perhaps be used against me, and it may be said, that nature, delighting in change, may render it necessary to change the location of animals also. The reason for a rotation of crops is, however, very different from that which is assigned for changing animals. It is because the continuance of the same grain for a succession of years upon the same soil, so much exhausts it, that the plant no longer finds the necessary nourishment. The power to afford this nourishment must be restored to the soil in one of two ways, either by manuring or by a crop of some vegetables, as clover, which gives to the earth more than it takes from it. That the same field will produce good crops of the same grain, for a long succession of years, by natural or artificial manuring, there can be no doubt.

There are many persons living who can testify, that a part of the alluvial bottom at the mouth of the Great Miami has produced a fine crop of Indian corn forty-one years in succession. It will this year produce 100 bushels to the acre, if properly cultivated. The rich deposit from the back water of the Ohio, which annually covers it for some weeks, still keeping up its original fertility.

It is thus with the domestic animals. If you have bred them from parents which nave been well selected either from your own flocks and herds, or those of others, and keep them constantly supplied with good nourishing food, there will be no necessity to send them on their travels for their health.

I beg leave to recommend to the proprietors of small farms in the vicinity of Cincinnati, the practice of feeding cattle in stalls, or small lots, in summer, upon cut grass. A farm of no great extent may be made to fatten at least double the number of beeves than it can do by pasturing them. It is much used in England, and is there called soiling. Red clover answers for this purpose exceedingly well. But I have no doubt that Lucerne is much better. It affords more nourishment than any other known grass, and its

vegetation is so rapid, that it may be cut once or twice oftner than clover, and affords a larger quantity at each cutting. It has been longer in cultivation, perhaps, than any other grass, having been used extensively by the Romans. That it has been so little attended to in the Western Country, proceeds from its being not so well calculated for pasture or for hay, as some of our other grasses, and from its not reaching maturity in one year. But those who have very small farms, or gentlemen in cities, who may have a lot to spare, would find great advantage in its cultivation. When it has once got thoroughly rooted it will last without renewal a man's life time. Sowing it in drills eighteen inches apart, is better than broad-cast.

Gentlemen, the place of your meeting should never be suffered to become the arena for the discussion of party politics, and I should be the last man to attempt to make it such. There are however, certain great principles belonging to our system of government, which should be in order to be introduced any where and every where: in every assemblage of American citizens. And never perhaps was there greater propriety in allowing this latitude, than at the present moment. The world appears to be every where in commotion. Materials are collecting for an explosion that is likly in the greater part of it, to destroy the long established state of things, and give a new aspect to its moral and political character. As every citizen of this happy country has the same interest in its well being and prosperity, and an equal voice in the conduct of its affairs, it is proper that every one should devote some portion of his time to understand correctly the situation in which we are placed, and consider the course we are to take in the mighty conflict which is commencing in other quarters of the globe, and through which we have triumphantly passed. Our course, it appears to me, is a plain one. If some benignant spirit, anxious for the happiness of mankind, were looking down from Heaven on the scene which this world presents, however much it might desire to promote the troubling of the waters elsewhere, as a necessary preparation for future health and happiness, for us it would desire that we should remain as we are. We have no Bastiles, no Inquisitions, no institutions the offspring of a remote and barbarous age, which must be overturned and broken down before we can assume the rights and privileges which were intended for us by our Maker. We possess them already. There is no necessity for us to make experiments, or travel upon untrodden ground. Our political maxims are few and simple. Our Constitution, the charter of our rights, is written with no Pythean or Syhiline obscurity. We have besides the advantage of repeated and learned expositions from those who framed it, and the best of all commentaries, an unexampled prosperity of forty years continuance. Why then should we change? Why seek for new versions, when the old has stood the test of experience? We know that as a nation, we are positively happy, and compared with others, transcendantly so. Let us then, remain as we are to do so, let us constantly recur to the fundamental principles of our government. One of them should be prominent in the exordium and peroration of our public speeches—the *delanda est Carthago* of all our orators and patriots. I mean that which teaches us not to devote ourselves to the interest of an individual to the sacrifice of measures called for by the public good. Gracious Heaven! that any American should become the pander to the ambition of his fellow man, forget the sacred obligation of duty to his country, and prefer the interests of one to the happiness of millions.

ART. CCXIV.—*Miscellaneous, Original and Selected.*

Premiums of the Massachusetts Society for the Promotion of Agriculture.—Among the liberal premiums offered by the Society, is that of $100 for butter, the same for the best mode of extirpating the worm that attacks the Locust-tree, and the same for the best plantation of white oak-trees. There are 54 premiums, amounting to near 2000 dollars.

Agricultural Fairs in Canada—We have received a list of articles, for which premiums are proposed by the Agricultural Society of the counties of Beauharnois and Huntingdon. Among the premiums by each is one for the best draft or work stallion—but none for racing.

Green Clover is a Good Food for Swine during summer; and clover hay, when boiled, is also found to be a good food for them during winter. Mr. Livingston makes mention of a farmer at Rhinebeck, who fed his hogs, during winter, with no other food but boiled clover, and that they were kept in good condition. The clover, used for them, was preserved by being salted, half a peck to a load. It was cut and left in winrows about six hours, then put into small cocks,—The next day, about noon, these were opened; towards evening they were hauled home, and laid away with salt, which kept the hay green all the year.

Number of Emigrants.—We gave up counting last week—every boat brought in hundreds; the exact number no one could tell. There have been 12 arrivals of steam-boats this season, and two hundred emigrants each, is a moderate estimate; making a total of twenty-four hundred.—*Detroit Courier.*

Bee Moth.—A friend informs us, he has discovered by experiment that dry comb laid about hives, forms a trap for the bee moth, by attracting the miller, which deposites its eggs in the comb, where they are easily destroyed. A piece of comb which he placed for the purpose, was completely filled with the moths.—*Western Tiller.*

Cabbage.—Manuring with ashes and lime has a tendency to preserve cabbages from insects; and to guard against the grub or black worm a little circle of quick lime is said to be of service. Lice on cabbage may be destroyed by washing the plants with strong brine. The under leaves of cabbages, when they begin to decay may be taken off and made food for cattle, but decayed leaves should never be given to milch cows as they give the milk a bad flavor.—*Western Plough-boy.*

A practical gardener informs us that frequent working the ground tends to keep off the lice.

To preserve Fruit.—Fruits of all sorts may be dried and kept a year or two, without losing their flavor, by wiping them dry, and putting them into a cool brick oven; and occasionally, while drying, grating a little sugar over them.—*Loudon.*

[For the New-York Farmer.]

AUGUST.

'Tis morning and the pearly dew
In radiant lustre glitters bright;
Now let us stroll the garden through,
And with its beauties feast our sight.

See'st thou this flower that greets thy eye,
And dazzles with its brilliant hue?
'Tis the Lobelia, and 'twill vie
The Painter's art, though e'er so true.

The Althea's too—how sweetly they
Their blossoms to the sun unfold,
And here Hibiscus in array
Stands forth a beauty to behold.

Centaurea* rears its lofty head
In neat and simple attire drest,
While low reclining on the bed
Cacalia's tassell'd flowerets rest.

And wilt thou weave a wreath of love,
And with it crimson stars entwine?
I charge thee ere in search thou rove,
To choose the splendid Cypress Vine.

The dew drops—see they melt away
Into the blue ethereal air,
And now farewell sweet flowers to day
We seek the busy scenes of care.

A. J. D.

* C. Americana.

Since our fair correspondent has thought advisable to weave a Cypress in her wreath, we hope she has not forgotten to give the Yarrow (Achillea) a prominent place.—*Ed.*

Officers of the New-York Horticultural Society for 1831.—At an election on Tuesday the 30th inst. the following persons were chosen.

President—Jacob Lorillard.

Vice Presidents,

Philip Hone,	John I. Palmer,
William Neilson,	Gideon Lee.
Charles Oakley,	

Treasurer—John Groshon.

Corresponding Secretary—Benj. McVickar, M. D.

Recording Secretary—William R. Cooke.

Librarian—Oliver M. Lownds.

COUNCIL.

Wm. M. Ireland, M. D.	Elias Wade, Jr.
William Curr,	William M. Price,
Michael Burnham,	William R. Prince,
William Wilson,	Richard Pennell, M. D.
James K. Hamilton,	Samuel Swartwout,
William Neale,	B. P. Melick,
E. H. Warner,	Robert McCoskry,
Alexander Smith,	George Herriot, M. D.
James McBrair,	Gilbert Davis,
Michael Floy,	Richard Hatfield,
James N. Wells,	George W. Arnold,
Thomas Hogg,	George Nixon,
John W. Wyman,	Nicholas Saltus.

To boil Potatos.—Since I came to Scotland I could not help noticing how much better they boil potatos here than I used to get them in London; and as this is a matter of some importance to cottagers, it may, perhaps not be amiss to state to you the method practised here, viz:—Wash the earth off the potatos, and scrape or pare the skin off; which last should be done as thin as possible, not only from motives of economy, but also because the outside of the potato is always the best. Then let them stand covered with, and soaking in, water an hour and a half or two hours; wash them well out of this water; put a handful of salt with them in the pan they are to be boiled in, covering of course, with cold water, and boil *quickly*, the quicker the better.—*Loudon.*

Honey from Rhododendrons.—A Rhododendron arboreum is coming into flower, and in a fortnight will have a splendid appearance. So abundant is the honey secreted by these flowers, that when they are shaken it falls from them like large drops of rain. Mr. Knight believes a spike of flowers may yield from a tea spoonful to a desert spoonful at a time, and after being exhausted a fresh supply is secreted; so that the quantity which one spike may produce appears unlimited. It is not ascertained to be perfectly wholesome; but the honey of the greater portion of the Ericeæ is so, notwithstanding the deleterious qualities of that, certain species of Azàlea.—*Loudon's visit to Knight's Exotic Nursery.*

Malta Orange.—In another house is a goodstock of imported orange trees from Malta, including all the best kinds grown in that Island. Among these is the mandarin orange, remarkable for its perfume as well as its flavor. It separates from the rind like the kernel of a nut from its shell, without any trouble of peeling or paring, and has been very appropriately designated by the Chinese as the aristocrat of the orange family.—*Ib.*

The Lime Tree is pre-eminently suited for the manufacture of butter casks, because it is the only British wood free from the pyroligneous acid: this was proved by innumerable experiments by Mr. George Moir, salt manufacturer, Edinburgh, and communicated by him to the Highland Society. (*Highland Soc. Trans.*) vol. vii. p. 355.)

Ulex europæa contains salt, which is the reason why horses and cattle fed on it, soon get a clear skin. (*Aiton's Dairy Husbandry*, p. 39.)

Robbing Gardens and Orchards.—Many persons have pilfered from orchards and gardens, under an idea that the offence was not punishable by the laws of the state. For the information of such poachers, it is thought proper to state, that by the revised statutes it is made a misdemeanor, and is punishable by a fine of $150, and six months imprisonment in the county jail.

New-York Cattle Market, Monday, August 29.—From 700 to 800 head of cattle—price $5½ to 7. Some Duchess County, and Branch (Susquehanna) cattle were very fine.

From 1500 to 2000 sheep and lambs—the former from $2 25 to 4 50—the latter $1 50 to 2 50.

Hay brings 63 to 70 cts. This is a good price for this season. It must be understood our report of hay includes only that sold on the wagons. Bundled hay is not considered equal to the loose.

Paris and London Markets.—The supplies of the Paris vegetable markets are inferior to those of London. The quality and variety of fruits are greatly inferior, and also the dryness and flavor of potatoes, and the succulency of turnips, cabbages, and the other common culinary vegetables; but the Paris markets approach to equality with those of London, in mushrooms, salads, and aromatic herbs, during summer, and surpass us in those articles during winter.

[For the New-York Farmer.]

ART. CCXV.—*Practical Agriculture.*

Do you suppose, Mr. Fleet, that a plain, homespun man, like me, a Country Farmer, whom you and some others have called a full-bred and successful cultivator of the soil, could so speak on paper, as to make what he has to say acceptable to the readers of the New-York Farmer? Practice, it is said, is the road to perfection; and yet practice is often compelled to stop far short of the degree of perfection prescribed in the theory. Never, in all my life, did I see the theory of family-government so beautifully perfect, as in my own family, Mr. Editor! But this, alas! was while I was a bachelor, and the family, and family-government, only the ideal of a theory. So it has fared, also, with my Agriculture. It has never yet come up to the perfection proposed, and perhaps never will. One reason of which, probably, is, that theory assumes too much. This brings me to the starting-point of my purpose, in proposing to write a few numbers on the actual business of Agriculture, addressed directly to the understanding of practical men, my brother Farmers. It appears to me, Mr. Editor, that men of this description do not furnish a due proportion of the matter for our Agricultural Journals. The writers seem not yet to have learned the distinction between theory and practise, Farming on paper, and on the soil. I fear they have not yet learned by experience.

The citizen, charmed with the ideal of rural life, about to retire to a Farm in the country, maps his Farm, draws lines for fences, here a meadow, there fields of grain, or fruits and crops always fine, of course. Here his pig yard, poultry yard, and goose-pasture. Whereon written, there they stay, as orderly as names can well be. Well, by-and-by, he is a Farmer. The crops are uncertain, insects destroy his fruit, the fences are blown down by storms, or even the pretty little brook, swollen to a torrent, sweeps them away, and spreads desolation where it was to produce fertility! The pigs go whereon they can, often trespassing upon other inclosures, where even in despite of boys, dogs, negroes, and close-fences, and the 'gobblers' are 'free commoners,' while the horses and the cattle sicken or die, and Farming in short, is found to be quite another sort of business; in fact, with *animals*, on the *soil*, or with their *names* only, on *paper!* So it fares with the theory of a thing, or business, and so with the practice. If Farmers would write more for Agricultural Journals, and write from experience, these papers would be much more useful, and I should hope, not less generally acceptable to their patrons. As guides, they would lead men securely, no small evidence of merit.

Without promising much, I mean to devote a few hours to subjects of general interest to Farmers, in a perfectly straight-forward way, in which I shall speak plainly of many things, and as a man of years and experience. If my example shall induce other Farmers to adopt the same course, it will have been productive of some good. You need not fear much display of learning, too much of which is often even more detrimental and disgusting, then too little, though this is bad enough. Think of it as we may, Farming is very much of a common-sense kind of business; and is, as I hope to show, pretty apt to be the occupation of common-sense men. They are, universally if not haters of pedantry, certainly not among its admirers, facts not generally known, perhaps, as extensively as they should be. In no one occupation, is great conceit of learning, and little sense, so altogether pernicious, as in ours. A COUNTRY FARMER.

[For the New-York Farmer.]

ART. CCXVI.—*The Country Farmer.*—No. I.

Mr. FLEET.—The Fly-wheel of an Engine, they say, adds nothing to its power, but that it is useful, in regulating the movements of the several parts. So, Mr. New-York Farmer, do my Sons, and Grandsons, call me 'the fly-wheel of the Farmer!' Our crops of Corn and Potatos, planted after the middle of May, this year, are now perfectly harvestable, 90 days from the planting: that is, they are now exactly in such a state of ripeness, as to call for immediate ingathering, or suffer by even a very few days delay. Some little greenness remains in a few leaves of the potato tops, but the roots have entirely done growing. The corn is all a little more than out of the milk, some few of the leaves are yet green, and the stalks are full of rich and well ripened juices. For manure, and fodder, these tops are now worth more than the expense of harvesting. We cut up the corn by the ground, shock it, and save even the husks, for fodder, as every good Farmer should do.

From the 25th of August, there is time for great crops of weeds. We let none of our fields lie too long, without being cropped with something. It is therefore a busy time with us, as you may well suppose. Winter grain is to be sown; we have some patches of lowland grass yet to cut, for hay; that besides the crops above mentioned, the orchards require attention, as well to their fruit, as to nests of worms, that are destroying the leaves, and perhaps threatening the life of the tree. As we rely much on *green dressings* of the soil, several of our fields are sown to winter rye, after taking off the corn and potatos; or to buckwheat, after wheat and rye. The buckwheat, we plough in, say when in blossom, or in all September, and harrow in winter rye upon it; or let it lie, for oats, corn, barley, or other spring grain. The winter rye, or rye and oats, still better for fall feed, makes rich pasturage, late in autumn, and early in spring, which is thus ploughed in, for a spring green dressing, say by the middle of May, followed by crops of spring grain, corn, oats, or potatos. The time for doing all this, you will observe, must be ascertained by observation, not by book. The ground, also, should soon be worked, only when in a suitable state, as to dryness, warmth, and moisture. The soil of our Farm, is either a light sandy loam, or a gravel of slate stone, the argillite of the geologists. In order to decompose the slaty gravel, or whiten the surface of the ground with quick lime sown broad-cast, at every working of it by the plough, which works the slate gradually into clay, and makes the soil a brown chocolate mould, warm, tenacious of moisture, and exceedingly productive. To supply a due proportion of vegetable matter, we rely on green dressing, aided by lime.

The nourishment of plants is produced by change going on in the soil, such as by fermentation, and, generally decomposition. To increase this action, and sometimes to hasten it, so as to save time, we

plough in our green dressings, well whitened with quick-lime and gypsum, sown on the morning dew. Turnips and Carrots come into our course of cropping on a small scale, but we rely more on clover and green dressings, with the pasture they afford, than on turnips, a crop rather over estimated, we think for our hard winter climate, though well adapted for milder winters, as in Great Britain. With another week, of favorable weather, we shall have sown all our fields of potatos, and sown rye, or rye and oats, for late and early feed, and for green dressings in the spring. Not a weed, bearing seed, will be seen in those fields, which by and by will be clothed with a matting of rich sweet and delicious food for our stock, instead of lying waste for weeds and barrenness, an eye sore to the practised husbandman.

With what delight, Mr Editor, have I just now seen three fields of our little Farm, the corn cut and shocked, the potatos all housed, and a very fine crop of the black rusty coat, their tops piled on the heaps of compost, and the soil neatly worked, sown to rye and oats, the surface whitened with quick-lime, like a March shower of snow! The 'Fly-Wheel?' my dear Sir, besides enjoying all this in the fields, where as hearty and fine a set of grandsons are at work as ever made the heart of a patriarch glad, hears the hum of the spinning wheel, on coming to the house. Days of my childhood! I love you; and, O my good sainted Mother, never can I think that Farm-house my home, where there is none of this music of the Spinning Wheel! It was thy music, the harp of the Farm, and its fruits the Jewels of the Farmer's daughters. When I was a little Boy, a Farmer's Boy, the morning slumbers of spring were almost always broken by the notes of the wild birds, and by this harp of the Farm-house, of the Spinner's song. Charmed, alike with the beauties of out door, and in door nature, rural life and simplicity of character, this harp of my ancestors has never been banished from my home. Associated with such recollections, the notes of the blue bird, phœbe bird, wren, and 'half reasoning,' half domesticated robin, are often heard from around their nests at my door, now in my old age, as if to keep alive the affections of youth, and lead them gently, from earth to heaven!

In my next number, having here indicated some of the details of the business of the actual Farmer, I shall attempt to exhibit faithfully, a characteristic delineation of the Farmer's avocation. I know not how it has happened, but, almost universally, the people seem to underrate the intelligence, and knowledge, and mind, employed in all other pursuits than their own. Every body, who can wield a goose-quill, put words into sentences,—and especially if he can talk learned nonsense in an unknown tongue, under the name of science,—assumes to teach us Farmers! In my introductory number, these paper-Farmers were characteristically defined, and I trust no one will misunderstand my meaning. In an ardent attachment to all that is useful in science, the writer of these numbers yields in zeal to no one, whatever may be the nature of his avocations or pursuits.

Sept. 1, 1831.

Crops of Ireland, by English dates of August 4th, are represented as highly favorable. Wheat, oats, and other grain were in fine condition; and potatoes promised abundantly.

[Although the following is not quite as appropriate to our columns as we could wish, still its intrinsic worth entitles it to a place. The article however, would have been more practically useful had the writer pointed out the means to prevent the complaint.—*Ed. N. Y. Farmer.*]

[For the New-York Farmer.]

ART. CCXVII.—*Cause of the Frequency and Violence of the Cramp.*

Mr. FLEET, If you deem the following explanation by Dr. Darwin, of the cause of the violence and frequency of the cramp, which attacks the muscles of the calf of the leg in certain conditions, sufficiently important to be made public, it is now at your option to render it so, together with the accompanying remarks, by inserting the subjoined in your useful repository.

The muscles of the calf of the leg are very liable to become cramped when we are in the water, or lying on our back in bed without any support to the toes. A spasmodic contraction of those muscles takes place, which draws the toes downwards, and is often attended with such pain as to cause the person to seize instinctively upon his toes and pull them towards him, or push them against the foot-board, or even in some cases to leap out of bed. On executing any of these movements, he experiences immediate relief, owing to the due resistance which is opposed to the strong muscles acting upon the heel. In no other part of the body is there so great a disparity between the two forces provided for flexing and extending a limb; in no part has a very strong mass of muscle so weak an antagonist, as in the calf of the leg; and this accounts for the greater *violence* of cramp in this member than in any other.

Dr. Darwin, in the first volume of his Zoonomia, section xviii. 15. has the following remark on this subject. "The reason that the contraction of the muscles of the calf of the leg is more violent during their convulsion than that of others, depends upon the weakness of their antagonist muscles; for, after these have been contracted in their usual action, as at every step in walking, they are again extended, not, as most other muscles are, by their antagonists, but by the weight of the whole body on the balls of the toes; and that weight applied to great mechanical advantage on the heel, that is, on the other end of the bone of the foot, which thus acts as a lever."

We can easily imagine, and probably many of us have felt, that pushing against the water in swimming, is about equivalent to exercising the muscles of our legs against the air. For, muscles accustomed to meet with such powerful resistance as is afforded by the ground in walking when our whole weight is concentrated upon the toes, must be very inadequately antagonized by the resistance which either of these elements is capable of offering. Yet, as there is certainly greater resistance in water than in air, cramps should be more frequent in the latter than in the former; which I believe is not the case. This may arise from the state of voluntary contraction in which those muscles *already* are in swimming, while they are perfectly quiescent in the bed; may, by giving them the same action in the latter case, one may even give himself the cramp.

Although, by the superior force of these muscles, opposed by no equivalent power, we can readily account for the greater violence of their convulsive

contraction, yet it is difficult to tell why, even when unopposed by any force, they should run into convulsion more *frequently* than any other muscles of the body. What is there in that (state) that should make them contract? aye, but there is something which might *permit* them. We might almost be led to believe that the muscles have a natural contractility in themselves. In fact, the greater frequency of occurrence and cramp in that part of the body, and also in the fingers, as after long writing,—the only two places in which the *flexor* muscles are not adequately restrained in their action by any muscular and constant force—affords a very plausible argument in favor of the innate contractility of the muscular fibres. (The reader will mind, that contractility is the word used among physicians to signify, a constantly acting contraction.)

Whether, then, these muscles are predisposed to take on a *convulsive* contraction, (or cramp,) in consequence of their habit which they have acquired in walking of frequent *voluntary* contraction; or whether the greater bulks of muscle concentrated on a weak point, (in that case allowing them to possess contractility, and to be excited into action by some internal agent,) or the distance of this part from the centre of volition can cause these muscles to take on a convulsive action, or cramp, in preference to those of any other part of the body—is a point which yet remains to be settled, not by the speculations, but by the lights and researches of succeeding inquirers.

New-York, Aug. 8, 1831. FAIR OAK.

[Mr. Stewart in his recent visit to the South Seas, gives the following description of the tomb of Napoleon, and of the beautiful scenery of St. Helena.—*Ed.*]

ART. CCXVIII.—*The Tomb of Napoleon.*

U. S. ship Vincennes,
Bay of Jamestown, May 5, 1830.

Yesterday morning, Capt. Finch, Dr. Mahlon, and myself, took breakfast with Dr. Price, the health officer of the port, and soon afterwards became mounted for an excursion to Longwood and the residence of Gen. Dallas.

After the ride of an hour up the zigzag roads cut in the surface of the hill, by which alone, on the one side of the glen or on the other, the ascent to the mountainous country in the central parts of the island can be made, we found ourselves beyond the highest point of land between Jamestown and Longwood, and on the edge of a tremendous gulf of an oval form called "*The Punch Bowl.*" The precipices surrounding it are deeply furrowed by the washing of rains, and are every where tinged with hues of the most delicate shade—a light purple dashed with pink, and pale yellow predominating—the whole caused by the colored earth of which the soil is here constituted. At the head of the chasm, a narrow and secluded glen, contrasting strongly in the verdure and freshness of its trees, shrubbery, and grassy sides, with the coloring and nakedness of the wider and deeper parts below, lies cradled in green hills, and is the nook in which repose the bones of the greatest man of his age, and one of the master spirits of his race.

"High in his couch; the ocean flood,
Far, far below, by storms is curled,
And round him heaved, while high he stood,
A stormy and unstable world.

Alone he sleeps; the mountain cloud
Of night brings round him, and the breath
That morning scatters, is the shroud
That wraps the conqueror's clay in death.

Hark! comes there from the Pyramids,
And from Siberian wastes of snow,
And Europe's hills, a voice that bids
The world he awed to mourn him? No.

His only, his perpetual dirge,
Is the wild sea-bird's piercing cry,
The mournful murmur of the surge—
The cloud's deep voice—the wind's loud sigh!"

The tufted tops of the willows that droop around his grave, and the cottage and garden of the keeper, are seen in the depths of the glen, while on the height of the banks above appears the white front of Huts' gate, the farm-house, occupied by Montholon, and from which the captive was accustomed to descend on foot to the spring, near which he chose for himself a resting-place. Directly across the gulf, and within a mile in direct line, lies the plantation of Longwood, spread over an extensive plain, with the old and new houses on a gentle swelling of the highest point, with a few trees clustering around them.

The road to the plantation leads around the chasm by Huts' gate, and the ride to it at least two miles from the point of this distant view.

A few moments' ride brought us to a gate on the principal road opening into that cut in the side of the hill, for the funeral procession. This we descended; and on reaching a second gate at the end of half a mile, committed our horses to a person in waiting, and, passing round a bank tufted with shrubbery and gay with the scarlet blossoms of a geranium, found ourselves at the tomb of Napoleon, and on the brink of the pure fountain, the sweetness and refreshing coolness of whose waters in such a climate, led to the eventual consecration of the spot.

The grave is surrounded by a double enclosure—the first, of wooden pales in a dark paint, is a widely sweeping circle enclosing the four willows overhanging it, and the other a square of about twelve feet of plain iron railing, marking the immediate dimensions of the tomb itself. This consists of three large flagstones of granite, taken for the purpose from the hearth of the kitchen in New Longwood—laid without any inscription, in substantial masonry, at an elevation of a few inches only above the ground—a monument rude and unadorned, and in good keeping with the end of the ill-fated exile on whose bosom it presses.

After examining every point of interest, drinking of the spring, securing slips from the willows, inscribing our names in an album in care of the keeper, and musing on the career and fate of the conqueror over the little space of earth that alone of all his kingdoms is retained in his possession, we remounted our horses, and returning to the public road, proceeded around the head of the ravine by Huts' gate to Longwood.

The central parts of St. Helena are as singularly romantic and beautiful by nature, and as highly enriched by cultivation and art, as the exterior is forbidding and desolate; and after passing Huts' gate, our ride of two and a half hours through the bosom of a lovely little vale adorned by several handsome mansions

and neat cottages, and by a zigzag road cut in the sides of a succession of verdant hills, till we reached Diana's Peak, the highest point of the island, and then descended again to the residence of Gen. Dallas, was interesting and delightful beyond any anticipation we could have indulged from any thing previously seen. Diana's Peak can be ascended on horseback till within a few rods of its summits. This consists of a platform of a rock, mantled with vines and shrubbery, and overhung by a few low trees, from which the whole is seen in birds' eye view with the ocean on every side, its farthest verge, at a distance of fifty or sixty miles, being scarce distinguishable from the sky.

The scene, as looked upon from this point, is one of the most unique, diversified, and beautiful, that can be imagined—wanting only an icy pinnacle and snow capped summit here and there to make it a perfect Switzerland in miniature; and could at first sight of St. Helena be taken from Diana's Peak, or any of the surrounding points of view, it would be thought that the imperial exile had been the inhabitant of a paradise, rather than a prisoner on a desolate and barren rock. So strictly true is this of the romance and improvements of the interior, that the seat of Sir William Doverton, just beneath, on the road of the governmental county house, is by no means inappropriately called *fairy land.*

ART. CCXIX.—*Prudent Physical Education.*

There are some subjects, of such paramount importance, and which require so imperatively to be daily acted on, that one can hardly iterate too frequently, the material facts and experience necessary for their complete understanding. Of these, are the instilling of good moral principles into the minds of the young, and the giving the requisite opportunities for all the organs of their bodies to grow and acquire their full proportionate development and vigor. Time's unceasing march, requires of us promptness of action in these things. The infant passes into the state of childhood—the child into adolescence—the youth into manhood; while the parents are all the time resolving on doing their best to promote his health and cultivate his mind; but having no fixed plan, being ignorant or prejudiced, they have allowed the plant to shoot up to its full height, before they had precisely determined what direction it should take—whether it required props to prevent it from bending under its fruit, and what excrescence or useless branches were to be lopped off. The mother who has no definite notions of the suitable treatment of her infant at its birth, will have acquired few when it is a twelvemonth old: and if ignorant of the time when it should be weaned, and what kind of food it should have, after her own supply has failed, she will do little to direct it in regimen when it is able to play about, or before the young being passes from her care to the schoolmaster's. Obviously, then, is it desirable, for every person, man or woman, to be instructed in these matters, and not rely on the proverbs of some old crone, whose notions are the inheritance of superstition of the preceding century, as these were of the astrology and psalmistry of the hundred years before.

It has been justly remarked, that the physical treatment of a child, during the two first years of existence, is, in particular, a very important circumstance in regard to the prolongation of life. An infant at birth, has the frame or outline merely, of its organs. The nerves, the organs of the senses and mind, those of respiration and for locomotion, the teeth, the organs of speech, are to be yet expanded and receive growth and strength, to adapt them to the performance of the functions, and to the future wants of the individual. We need hardly enter into an argument, to prove the importance of attending to all the circumstances by which the continued process of expansion is carried on.

The organs, to the growth and invigoration of which, our attention ought to be mainly directed, during this early period—the first two years of life—are, primarily, the stomach, the lungs, and the skin; and then the heart and circulating vessels, and the senses of sight, and hearing, and the brain.

A means of having good lungs, will be found in pure open air, and afterwards in speaking, singing, running; a sound stomach, by wholesome food, easy of digestion, but neither too strong and stimulating, nor too highly seasoned: a sound skin, by cleanliness, washing, bathing, pure air, a temperature clear of the extremes of great heat, or great cold; and afterwards by exercise; and a strong heart and vessels, by all the above means; in particular, by wholesome nourishment, and afterwards by bodily motion.

Nature points out in our own species, as well as in all the higher orders of animals, the fittest food for the first period of existence. It is the milk of the mother, which, holding a mean rank between animal and vegetable food, conveys abundant nutriment, without much stimulation. Its fluidity and homogeneousness, make it fit to be swallowed without the prelimary process of mastication, which the want of teeth, in infancy, would prevent being performed. The body of a child may be said to live quicker than that of a grown up person, and changes oftener its component parts—it requires nourishment not merely for its support, but for its growth, which is very rapid during the first year. But the young being has, also, a great degree of irritability, so that a stimulus, which a grown up person would hardly feel, may, in it, produce fever, or the cramp and convulsions. We see this truth manifested in the effects of difficult teething, of indigestible matter in the stomach, and a little later by worms.

Moved by all these considerations, it has been declared, on high authority, to be one of the first laws of nature, and a principal ground for a long and healthy life, that *a child should be nourished, during the whole of the first year, by the milk of the mother, or of a sound nurse.* This maxim, most unquestionably true in the main, cannot, however, be generally carried out to a literal extent. That for the period just mentioned, the mother's milk should constitute the chief nutriment of the child, no observant and experienced person can doubt. But, as circumstances may intervene to prevent either a sufficient supply of breast milk, or the child having regular access to it, our next object is, to be able to furnish the little being with food of as nearly analogous properties as possible. This can be done by giving it cow's milk, diluted with water, and the addition of a little sugar. The child is to take this in a manner closely resembling that by which it draws milk from its mother. With this view, the fluid, prepared as above, is to be put into a clean and well scalded bottle, and drawn up by the

child, through a tube, the end of which, in the mouth, is made to resemble the nipple, and covered with some soft substance—such as a cow's teat, perforated with holes. If the child be feverish from teething, or temporary and accidental causes, small quantities of pure cold water may be given to it for drink.

Here, in a few words, we have described all the food, necessary for the child, during the first year.—And is this really all? many a mother and nurse will doubtless exclaim. Do you not recommend flour or biscuit pap—cinnamon or clove cordial—sometimes a piece of meat to suck—light puddings, &c. We can only say, that if we desired to multiply the chances of present sickness and future infirmities for the child, we would recommend these and many other mixtures. But as we know experimentally, that the best health has been maintained by the simple plans we have pointed out, we trust that they who value their own peace of mind, and their child's health, nay, life even, will be content with that which is simple and natural; leaving the rest to be lauded by gossips, dotards, and quacks.—*Journal of Health.*

ART. CCXX.—*Bone and Bone Manure.*

The article of neat cattles' leg and thigh bones has become, within ten years past, of considerable importance in this country, not only for various manufacturing purposes, (being made into a great variety of staple as well as elegant fancy articles,) but on account of the refuse, which is of great value as a manure. It is superior to most kinds known, and is excelled perhaps by no other for particular soils. One dressing of bone manure on loose, thin soils, is considered by the English agriculturists as equal to three of yard manure; and it is used with great success, particularly in the culture of turnips. The great difficulty which the farmer meets with in obtaining either yard, vegetable, or compost manure, is well known, as well as the impossibility of obtaining even a moderate supply, except in the immediate vicinity of large towns, or cities. The attention of the farmer will be well rewarded by a fair experiment. It should be ground, or broken, as fine as saw dust, if possible. In England, mills are erected expressly for the purpose, and large quantities of refuse bone are imported and ground for the farmer. It is in one respect different from most other kinds, as it of itself produces no weeds, and therefore is peculiarly adapted to gardens. Bones from the legs of neat cattle are in demand, and command a higher price than in Europe. The attention of the public is requested, to notice the fact that several thousand dollars might be saved in this city, if the inhabitants generally, but more particularly the keepers of hotels, eating houses, &c. would encourage their domestics to save all such bones as are valuable, and for which they can always receive the money; and in many houses it would be no trifling perquisite. About nine thousand dollars have been paid, in cash, for bones at one establishment in this city during the past year, all of which have been manufactured and sold in this city. This has afforded regular work, and liberal wages to fifty respectable indigent females, and obviated the necessity of sending abroad for the goods. At the slaughtering yards in the interior of the country, situated on or near navigable streams, large quantities of bone might be saved and shipped to this market at a profit, which are now thrown away. All that is required is, that the bone should be preserved whole, and boiled sufficiently to extract the principal part of the marrow, leaving them a greasy appearance. Then place them in a situation protected from the sun, rain, or drying wind, either of which injures them essentially; and they may be shipped under cover, in bulk, or on deck, in strong, cheap old casks. The hoofs are also valuable; and the demand for them will no doubt increase. They should be taken off without using hot water, and saved whole. They are worth from six to ten dollars a thousand. The value of the article, either for manufacturing purposes or for manure, is but little known in this country generally; and the object of the writer is, to awaken the attention of the public to the subject, hoping that the intelligent, practical farmer will be induced to make an experiment, and the man of public spirit an exertion, to secure all the resources of our country for the general benefit.

ART. CCXXI.—*Miscellaneous Selections from the June Number of Loudon's Magazine.*

The Market Gardens of Paris (les Jardins Marais) are numerous, generally of small extent, and cultivated by manual labour; but a few of them may be designated Farm Gardens in which are used the plough and other agricultural implements. As vegetables enter more into the cookery of France than they do into that of England, an immense quantity is consumed at the hospitals and similar institutions; and in consequence of this, the more extensive market-gardeners employ their produce chiefly in executing contracts entered into with public bodies. With this exception, the produce of the Paris market-gardens is sold in vegetable markets, as in London. There are several of these but none so decidedly superior to all the others as to be compared to Covent Garden Market.

Aubervillers—Is a small village about a league from Paris, and M. Cadet de Mars's grounds occupy 50 or 60 acres around it. This gardener has been repeatedly mayor of his village, and he is unquestionably at the head of field market-gardeners in the neighbourhood of Paris. He was, as he told us, a peasant; but it is impossible to see his imposing manly figure and open generous countenance without feeling that he is noble by nature. He is upwards of seventy; and he began the world without a penny, and without education; but he is now proprietor of the grounds which he cultivates, besides houses and other property. He has lately ceded his grounds, with the exception of a few acres for his own amusement, to his children; and lives quietly with his wife, an excellent woman, about twenty years younger than himself. This old man is full of gaiety and spirits, content with his past life, and apparently happy. He told us that he would travel through England, provided his wife would accompany him. He once went as far as Havre with a friend who was going to England, for the sake of seeing the sea, and he speaks with raptures of the visit. He takes an interest in all that is passing in the world, and spoke much of America; the government of which he admires beyond that of all other countries and which he hopes that France will one day adopt as a model.

Art. CCXXII.—*The Peach.*

Natural Order.—*Rosaceæ*, resembling the rose in flowers and medicinal properties, being refrigerant, tonic and astringent. Class—*Icosandria*, having about twenty stamens situated on the calyx. Order—*Monogynia*, having but one pistil. Genus—*Persica*, comprising peaches.

All the ancient authors agree that the peach tree is a native of Persia; and it appears that the fruit was thought to be of a poisonous nature. It is evident there had been traditionary tales of this fruit having been sent into Egypt to poison the inhabitants. Columella says in his tenth book:

'And apples which most barbarous Persia sent,
With native poison armed (as fame relates):
But now they've lost their power to kill, and yield
Ambrosian juice, and have forgot to hurt;
And of their country still retain the name.'

Pliny relates that they had been stated to have possessed venomous qualities, and that this fruit was sent into Egypt by the kings of Persia, by way of revenge to plague the natives; but he treats this story as a mere fable, adding, that the name of *Persica* evidently bespeaks them a Persian fruit. Cato has not mentioned them; and Pliny adds, that it was not long since peaches were known in Rome, and there was great difficulty in rearing them. He informs us they were brought from Egypt to the island of Rhodes, where they could never be made to produce fruit; and from thence to Italy. He says, moreover, that it was not a common fruit in Greece or in Natolia. This author states again, that he considered it the most harmless fruit in the world; that it had the most juice with the least smell of any fruit, and yet caused thirst to those who ate of it.

Peaches were evidently cultivated in France at an early period, and Columella continues, in his account of this fruit by stating—

'Those of small size to ripen make great haste;
Such as great Gaul bestows, observes due time
And seasons, not too early nor too late.'

Pliny says, 'as for the French and the Asiatic, they bear the name of the regions and nations from whence they came.'

It is stated that the peach tree was not cultivated in England before the year 1562; and by whom it was introduced, or from what country it was procured we have no authentic account; although Gerard wrote his work soon after, which was published in 1597 wherein he describes the white peach, the red peach, the yellow peach, and the d'avant peach, and adds, 'I have them all in my garden, with many other sorts.'

Of this delicious melting fruit, we have a great variety, from the small nutmeg peach which ripens in August, to the Hyslop's fine late peach which ripens in November. The peach has been almost equally multiplied in its variety with the apple, by sowing the stones, and by the ingenious method of impregnating the blossoms. Mr. Knight, alluded to in our last number, has procured a new peach by this operation; he impregnated the pistil of the blossom of an almond tree, with the pollen of a peach flower; and this almond when planted, produced a peach tree instead of one of its own kind, and has since ripened peaches.

The following list of peaches, with the time of ripening, is taken from the catalogue of J. Bloodgood & Co. of Flushing, edition 1831.—*Ed. N. Y. Farmer.*

Those marked thus *a* are more esteemed for their flavor, and those thus † for their size. C. denotes cling-stone.

Those which ripen in July are, 1 Scarlet Nutmeg 2 Yellow Nutmeg, 3 *a*Red Nutmeg, 4 *a*White Nutmeg *or early Avant*, 5 *a*Green Nutmeg, *or early Ann*; July and August, 6 *a*Sweet Water.

In August are, 7 *†Red RareRipe, *or early French*, 8 †Alberge, *or yellow Rare Ripe*, 9 *a*White Rare Ripe 10 White Magdalen, 11 *a*†Large Early Red, *or Early York*, 12 *a*Early Red, C. 13 *a*Necton, 14 Lafayette Red, C.

In August and September, 15 *a*Brainard's Yellow, *very fine*, 16 *a*†Gross Mignonne, 17 New Cut-leaved, 18 Petit Mignonne, 19 *a*Selby's fine White, C. 20 *a*Hewlett's Large Red, C. 21 *a*Orange Peach, 22 *a*†Flushing Peach, 23 Maria Antoinette, 24 Bloodgood's Late Green, 25 *a*Royal Kensington, 26 *a*Teton D'Venus, 27 White Malecaton, 28 George the Fourth, 29 *a*Mammoth, 30 *a*O'Brien's Large Red, C. *fine*, 31 *a*Rhode's *fine*, C. 32 *a*Astor's, 33 Vanguard, 34 Red Velvet, 35 *a*†Late Red Rare Ripe, 36 *a*†Bergen's *fine yellow*, 37 *a*†Rodman's Red, C. 38 *a*†Yellow or Red Cheeked Malecaton, 39 *a*Swalsh 40 *a*†Oldmixon, 41 *a*†Oldmixon, C.

In September, 42 Pine Apple. C. 43 *a*Red Magdalen, 44 *a*Columbia, 45 Hill's Madeira, 46 New Newington, C. 47 *a*†Old Newington, C. 48 *a*Bourdine, 49 White Blossom, 50 *a*Millett's Mignonne, 51 La Royal, 52 *a*Orange C. 53 *a*†Green Catherine, *or Doctor Cooper*, 54 Double Rose Flowering, *ornamental*, 55 Freestone Heath, 56 *a*†Late Admirable, C. 57 *a*†Nalta, 58 Morris White, 59 *a*Brevoort's Morris. 60 *a*Noblesse, 61 *a*†Lemon Peach, 62 *a*†Kennedy's Carolina, *Early Lemon*, C. 63 *a*†York Island's Peach 64 *a*† Admirable, *excelled by none*, 65 *a*† Congress, C. *fine* 66 *a*President, 67 Pavi Royal, 68 *a*†Pavi Admirable, *very fine*, 69 White Stone, 70 †Lemon, C. *late large Lemon*, C. 71 †Blood, *or Claret*, C. 72 *a*Late Gallande, *or Bellegarde*, 73 *a*White, C. 74 Scarlet Pine Apple, C.

In September and October, 85 *a*Selby's Late C. 76 *a*†Algiers, *fine yellow*, C. 77 Blood Peach, 78 *a*†White October, C. 79 Milford Peach, *good for preserves*, 80 Winter Green, C. *for preserves*, 81 †October Yellow, C. 82 Powell's Late Yellow, 83 *a*†Heath, C. *must be kept in cultivated ground, fruit excellent*, *a*†Pompone, C.

It has been frequently remarked, that the finest flavored peaches have been gathered from trees of the greatest age. Peach trees have been known to attain the age of fifty or sixty years. yielding an ample crop, when younger ones fail.

Peach trees grow in abundance on the Mississippi, particularly in Louisiana. As the latitude of that place is the same as that part of Asia of which these trees are the natural production, there can be no doubt but they are indigenious to Louisiana, as well as to Persia; although in this section of the United States the peach is regarded as a foreign fruit, it having been introduced from Europe before Louisiana had been explored.

This fruit is cultivated with such success in many parts of the Union—Virginia and Pennsylvania in particular—that it is not uncommon to see orchards containing one thousand standard peach trees, which are so productive that the fruit is used to fatten swine: from a single orchard have been procured,

after the pulp is fermented and distilled, one hundred barrels of peach brandy.

The best peaches of every kind are red on the side next the sun, and of a yellowish cast towards the wall the pulp should also be of a yellowish tint, and juicy: the skin thin, and the stone small. To have them in perfection, they should not be gathered until they will fall into the hand by the slightest touch of the finger.

This is one of the fruits in particular which is recommended to be eaten in the morning, in preference to the usual time of desert. Brook says, 'peaches agree well with persons of hot constitutions and costive habits, especially if they be eaten in a morning fasting.'

The flowers of a peach tree are used in medicine; when made into syrup they are given as an aperient to children, and are recommended as a great destroyer of worms.

It should be observed not to get the flowers from those peach trees that have been grafted upon almond stocks, as the flowers partake of the property of the stock, which greatly alters their virtue.

The young leaves are used by cooks to flavor blancmange custards, puddings, &c.: and a liquor resembling *noyau* is made by steeping peach leaves in white brandy, and when sweetened with sugar candy, and fined with milk, it is difficult to distinguish it from the flavored cordial of Martinique.

From the wood of the peach tree the color called rose pink is procured.

October is the best time for winter pruning, when, with little attention the blossom buds will be known from the wood buds; the latter being less turgid, longer and narrower than the blossom buds. In shortening the branches, observe to leave a wood bud at the end instead of a fruit bud. Care should be taken to nip off the ends of the strong shoots in the month of May or June, which will cause them to throw out new boughs in every part of the tree, as it produces its fruits from the young wood, either of the same, or at the most of the former year's shoots.

Peach trees are often injured by a desire to retain too full a crop on the branches, which not only prevents the present fruit from coming to maturity, but by exhausting the tree, prevents its fruiting in future years. When the peach has attained the size of a small gooseberry, the trees should be carefully thinned, leaving the fruit not nearer than from four to six inches to each other.—*Naturalist.*

ART. CCXXIII.—*Miscellaneous, Original, and Selected.*

Enlarged Fruit.—One of the most pleasing and remarkable experiments made in horticulture, is that of Pro. Poiteau, in the production of enlarged Peaches. He made an incision around the limb of a peach tree, which, as has long been known, will make the fruit larger. He took a bud from this branch and inoculated another tree. The consequence is that the fruit is of the same enlarged size as that of the experimented branch.

Long Life of Scions.—Pro. J. W. Van Mons, in writing to Gen. Dearborn, mentions the following remarkable fact:—"I should remind you, that some scions, which were sent me from New-York, by my elevé Gerard, were two years and a half on the way, still I grafted them, by copulation, upon adult trees one on each branch, and not any of them failed. It was in the middle of September. A scion is never too old, or rather too dry, not to succeed, provided it has been cut from a living tree, or from one that has not perished by a natural death. Artificial death, such as that occasioned by deplantation, does not injure, in the least, the excellence of the scion."

Destruction of Insects.—MR. FESSENDEN—Now is the time to destroy caterpillars. The eggs, from which they are produced, are now to be found in bunches on the twigs of fruit trees. By taking off those bunches the vermin are destroyed in the egg. The color of the bunches is now so much darker than the bark of the twig, that they are easily found; it will, by degrees, become lighter, until it will be very near the color of the bark. The eggs are laid in July. They remain, where laid, unaffected by change of weather, by frost or heat, until spring, when they are hatched by the flowing of the sap, and vegetative power of the twig. Each bunch of eggs will produce a swarm of caterpillars that will have a nest by themselves. The nest is usually built on the branch that bore the twig on which the eggs were laid. As caterpillars have no disposition to leave the tree, on which they were hatched, until the time when they leave their nest and separate to come together no more, it is very easy to keep small trees free from their nests, by destroying the eggs.—*N. E. Farmer.*

New England Sylva.—Mr. D. T. Browne, the industrious Editor of the Naturalist, proposes to publish in this city, the New England Sylva, containing a description of the forest trees, in New England; with their uses and manner of culture and propagation; to make a duodecimo volume of about 200 pages, ornamented with plates, price $1,00. Such a work, faithfully executed, we think would meet a ready sale.—*Ib.*

Imitation China Ink.—Dissolve six parts of isinglass in twice the weight of boiling water, and one part of Spanish liquorice in two parts of water. Mix the two solutions while warm, and incorporate them, by a little at a time, with one part of the finest ivory black, using a spatula for the purpose. When the mixture has been perfectly made, heat it in a water bath till the water is nearly evaporated; it will then form a paste, to which any desired form may be given, by moulding it as usual. The color and goodness of this ink, will bear a comparison with the best China or India Ink.

Increase of the Village of Lowell.—In 1821 this place contained only 120 inhabitants. It now numbers more than 7000. The different mills are built of brick, and are 152 by 42 feet. The following list of the Companies will give some idea of the amount of business done.

Merrimack Manufacturing Company—Capital, $1,500,000—5 Mills for spinning and weaving—23,000 spindles—780 Looms—employ 1500 hands.

Hamilton Company—Capital, $800,000—3 Mills, two of which make twilled goods; the others fabricate fine shirtings and sheetings—14,000 spindles—480 Looms—and employ 780 hands. To these two Companies, are annexed *printing* and *bleaching* works. The former prints on an average, 112,000, yards, per week; the latter about 39,000 per week.

Appleton Company—Capital, $500,000. Work two mills and fabricate coarse shirtings—9,000 spindles—250 Looms—450 hands. Make 24,000 *pieces* per week—a *piece* is twenty-eight yards.

Lowell Company—Capital, $400,000—4,000 spindles and 160 Looms. Their fabrics are negro cloths and coarse cottons. Part of this establishment is appropriated to the manufacture of carpets. There are at present 53 Looms weaving Kidderminster carpets, and 6 Looms on Brussels and rugs. The carpets are of rare workmanship, and approximate in quality to those imported. The carpet weavers are mostly foreigners.

Middlesex Company—A woollen establishment, which manufactures 500 yards of Cassimeres per day.

Locks and Canal Company—with a capital of $600,000, to which is attached the *Machine-shop*, employing 200 work-men.

Foundations are at this moment making, for new and equally extensive factories.

Onions and Carrots are charred so as to become as black as ink: this effect is produced by baking them slowly in an oven, and taking them out at intervals during several days. They are used in cookery for coloring soups.

Cincinnati Market.—Flour comes into market in small quantities and is taken freely at $3,87 and $4 per barrel.

Whiskey has declined since last week; sales have been made to-day at 28½ cts. gal.

Bacon. This article is looking up; several purchasers are now in market and offer 4,3-4 to 5,1-4 cts. lb.

Lard—very little in market; sales at 9 cts. lb.

Wool. This article is still dull and no transactions in the city: common 33 to 40 cts. merino 50 to 60 cts. lb.—*Western Tiller, August* 27.

Loubat's Vineyard.—On the 5th inst. we visited the Loubat Vineyard on Long Island. Mr. L. is now absent in France, and although we had but a few minutes to inspect the vines, still we saw sufficient to confirm us in our opinion that the successful culture of the foreign vine is not only quite possible, but almost absolutely certain, There is a much greater quantity of grapes than last year. Already three or four hundred pounds have been sold in the city markets, at 15 to 30 cents per. lb. We understood the mildew had not been troublesome.

New-York Cattle Market, Monday, Sept. 5.—We had from 500 to 600 head of cattle—price from $5 to 6½ per hundred. The sale tolerably brisk at the above prices.

Sheep and Lambs a pretty good supply and ready sale. The former from $2 to $5, and the latter from $1,50 to 2,50 each. Yet, a considerable number of the *old sheep* being in a store or stock condition—were purchased by Graziers of Dutchess and other counties, to be taken and fattened on these rich soils.

Cows and Calves—but few at market. The prices varying from $20 to $30.

Swine come sparingly to market—prices merely nominal.

Hay—from 65 to 75 cents per hundred—with a ready sale for good quality.

White Oak Timber.—The probability is that there will be sent to the New-York market, from this village, the present season, oak plank to the amount of $50,000 and the average price may be calculated at about $35 per thousand board measure. The cost of transporting it to that market may be put down at $12 per thousand; the cost of getting the logs to the mill and sawing $8 leaving $15 per M. for the timber standing. Now every farmer knows that it does not require a very large tree to make a thousand feet of boards, consequently such an oak tree is worth $15.

Rochester Farmer.

Sowing Wheat.—This is the season for putting in the ground the seed of this important crop. Great care should be taken to have the grain perfectly clean, and of the best kind. It is not sufficient to have the ground well manured, and in good order, but much pains should be taken to have the seed evenly sowed and covered,

Corn Stalks.—One of the most palatable kinds of food for horses and cows, is corn stalks, if well cured. Most farmers are very particular in curing hay, but many of them are extremely careless with their stalks, forgetting that if they are badly cured, they are not only less palatable, but less nourishing, and consequently inattention in this respect, is bad husbandry. Many a farmer, by properly curing his stalks, could have had in the spring, a few hundred of hay to sell instead of to buy.

Anniversary Exhibition of the New-York Horticultural Society.—The annual floral and pomonal exhibition took place on the 7th inst., at Niblo's. In addition to the trees, shrubbery, and green-house plants belonging to the garden, its beauty and attractions were hightened by the addition of many choice and splendid cut flowers, and plants in pots, from the gardens of florists and amateurs of the city and its vicinity,

These were arranged in various parts of the garden, but the fruit was displayed in a large marquèe in the form of an amphitheatre shaded by an awning terminating in a peak, directly under which, in the centre of the marquèe, was a high pyramid of flowers, supported on a base loaded with fruit.

The diplay of fruit was luxuriantly rich—the variety great, and the quality superior to any former exhibition. The peaches, particularly from the gardens and orchards of two or three gentlemen, surpassed in flavor, size and beauty, the general conceptions entertained of the culture of the fruit in this section of our country. The grapes too, afforded a pleasing proof that this inestimable fruit is rapidly improving, and will not only be acclimated, but find a genial clime and soil in our country. The day was fine affording an oportunity for several thousand of citizens and strangers to see one of the richest and most beautiful displays of nature,

In the next number, we will give more particulars of the exhibition.

New-York Produce Market, Sept. 7.—For Cotton the market is heavy; the arrivals of Flour more extensive, of southern new Wheat, 5,62½ to 5,75, Troy 5,37½; Rye Flour and Corn Meal scarce. Wheat 1,06 to 1,16, Rye 80. Beef and Pork remain stationary; Wool Marino American fleece 45 to 75, common 25 to 35. Pulled, Spinning 50, Lambs, 1st quality 58 to 60, 2d do. 40 to 42, 3d do. 28 to 30. Tallow—*Duty*—1 cent per lb. Foreign none, American 9½.

[For the New-York Farmer.]

ART. CCXXIV.—*The Country Farmer.*—No. II.

MR. FLEET—Before advancing any farther, let us, if you please, enter into an examination of the various and important duties and employments, mental and bodily, of the actual Farmer, the Husbandman, or of a Household of Husbandry. Few are they, of the inhabitants of large towns, or cities, or even of professional men, or men of any other business, though residing around them, who have any just conception of the mind, and talents, and various information, with constant care, that is required in the direction of such an establishment. In general terms, every body knows, that the business of the Farmer, is, to make a living by the cultivation of the earth. He is to raise vegetables, according to the soil, climate, and the demand, or market, for the support of his family, and, by prudence and economy, to increase in substance. Such is the brief outline. Farmers, also, who will, who do increase in substance, are obliged to practice the habits of economy,—to live like Farmers,—and hence they often are regarded, by their town acquaintances, as somewhat parsimonious, 'as close as a Farmer,' or, perhaps, as 'saving, and as stingy.' With an intention to show, by-and-by, that these very habits are a very essential, but greatly undervalued, part of the education of both sexes, in reference to usefulness, and that therefore Husbandry is entitled to the greater regard, we pass to the proposed examination of the business of Husbandry.

Here is a Farm, of perhaps 50 to 100 acres of arable land,—and most Farms are too large,—which is to be managed, and worked, by the Family of the Husbandman. If well distributed for a Farm, there is woodland, probably hill and dale, ledges of rock, a brook, springs of water, soils of various qualities, as clay, sand, gravel, loam, some dry and warm, some cold and wet, rich or poor, level or uneven, and the whole is, or is to be, arranged into inclosures, or fields, by fences. In this distribution, as in the subsequent appropriations, much good sense is necessary, so as to adapt the soils to proper uses, and the crops to the proper soils. We will suppose the necessary fences made, and the buildings erected, with Farm-house, barn, sheds, out-houses, a Garden, well selected, and found and stocked with fruit. That, what rarely happens, there is a due proportion of meadow-pasture, and arable soil, and the Farmer out of debt. Now for Farming, the out-door business, and by-and-by for the dairy, and household manufactures, the branches of Husbandry for her of the in-door department. First, of the stock of the Farm, cows, oxen, sheep, horses, geese, turkeys, ducks, and mynheer of the dunghill, all which require some judgment, much care, and at least as much good sense as the stocks of the broker, or the merchant. Each must be in due proportion, and kept so, according to constantly varying circumstances.

Then comes the proper crops, for consideration, in which the time of the year is to be considered, the chances estimated, with those of the seasons, and the weather, ever various, as well as the market, or demand. If, by unforeseen delays, the time has elapsed, for one thing, then what next is best, emergency upon emergency, for which every real Farmer must be prepared. In my last No. I spoke of the right time for doing things on a Farm, in order to indicate the importance of being ready at the right time, in which very much of the true wisdom of actual Farming consists, a secret not yet known to the inexperienced. The grass is to be cut, perhaps, the grain, and other things harvested; the fences must be attended to; the stock changed from field to field, salted, nursed, and even doctored; and all this must be done at the right time, or much loss is sustained. The labor of the Farm must be directed aright, in all these points; and here comes in the use of this 'Fly-wheel of the Farm,' the old man, whose eye must be upon every thing, men, boys, cows, oxen, sheep, horses, the poultry, the growing and harvested crops, fences, weeds, water, wind and weather! Besides, there is a time for marketing, as well as for every thing else, and a right time and a wrong time, which must not be lost sight of, for this kind of vigilance is also a part of good Husbandry. Can all these details of business be attended to by a dunce; or, rather, can they be, by any body but a man of sense? Farming is, in a greater degree then almost any other, a business of good sense, constantly in exercise. They who lack this, however much learning they may have, are unsuccessful as Farmers, as well they may be. That there are bad examples of Farming, I readily admit, as there are, also, in all sorts and kinds of business. There are drones, even, in a bee-hive, and careless members of the most careful families. To succeed in Farming, great care is indispensible, with quite as much discretion, and sound practical good sense, as in any of the various business avocations of life.

If such be the facts,—and for the truth of them I appeal to all the common sense of the country,—why is it, that, in all directions, our business is looked upon as one that may be followed by any dull fellow, without mind, or that so many such undertake to become our teachers? Even before they have found out that pigs, on paper, are very different things to manage, from pigs on a Farm! It is time to speak plainly. I shall do so, also, with my brother Farmers, many of whom are too much inclined to run into the extravagant customs of this age of extravagance. Of all folly, that merits the severest reprehension, which would barter an honest independence, and a life of active usefulness, for the idle toys, and the mere gewgaws of the folly of fashion. To guard the young members of the Families of my brother Farmers against the seductions of the fashions of the age, is one purpose of these numbers. The object, I know, is a great and good one, in which the effort will be seconded by all the honest good sense of the country. Had I the fame of Washington, or of Cincinnatus, or of any or all of those great men, who have gone from the plough, to distinguish themselves in the field, no uncommon occurrence, I should pride myself in using it all for this most noble and holy purpose. The career of Agriculture, in our country, has much in it that is brilliant; and much, alas! of a tendency to remind us of that melancholy picture of human life, by the great Captain and master spirit of the age, '*From the sublime, to the ridiculous, is but a step.*'

Sept. 5, 1831.

Errata.—Our correspondent complains of errors in No. 1. The copy of a part of this number was mislaid, while correcting for press. The writer, however, should remember that his hand writing is among the most difficult to decypher.

[For the New-York Farmer.]

ART. CCXXV.—*The Injurious Effects of Using Copper Vessels for Culinary Purposes.*

Sir,—When we reflect on the numerous and almost daily occurrences, and hair-breadth escapes, from poison and premature death, to the human and also to the brute creation, through the negligence of heedless and ignorant servants, especially in our *domestic culinary departments*, we shall not be surprised on a perusal of the following recent case, and deleterious effects of the salt of copper.

Hence, the great responsibility of masters of families in cases of this nature, duly instructing their domestics who are too frequently ignorant of the effects of copper Utensils—for culinary purposes. The following I transcribe from the British Farmer's Journal:

"A CAUTION.—On Thursday, the 9th ult., Mr. William Eames, a respectable farmer of Houghton Regis, lost six fine pigs in the following manner:—It appears that it is a common practice, in this part of the country, with the servant girls in a farmer's kitchen to put an article of copper, such as saucepans, boilers, &c., which they wish to clean, into the wash which is kept for the pigs. This wash is generally sour, and this, acting upon the copper as an acid, causes whatever is put into it to come out clean. Mr. Eames's servant, it appears, had a few days previous put the lid of a large copper boiler in the tub containing the wash, in order to clean it; this it did effectually, but so strongly was the wash impregnated with the poisonous quality of the copper, that when it was given to the pigs, it killed six of them in one day, and made several of the other pigs, which eat of it, violently ill; they eventually recovered, and the cause, which was soon found out, was removed. A year or two back, a farmer in this neighborhood had nearly poisoned his harvest men by letting their soup stand in a copper vessel; he had nearly, if not quite, a score of men, and several of them were very ill, and near dying."

I trust the above caution may not be unacceptable to your numerous readers—From, sir, your obed. ser't,

New-York, Sept. 9, 1831. JOHN FISHER.

[We are indebted to our files of the British Farmer's Journal for the following. There are advantages in reading the state of agriculture in other countries—we are enabled to compare and draw contrasts.—*Ed.*]

ART. CCXXVI.—*French Agriculture.*

In some parts of the south of France, the ancient method of treading the Corn out of the ear by horses or oxen, is still practised, whilst near Paris and in a few other districts, thrashing machines are beginning to be used; but the great majority of the nation are only acquainted with the flail. Several extensive agriculturists, having found that the common thrashing mills cut the straw and rendered it unfit for the Paris markets, now use machines, in which the grain is thrashed out by the quickly repeated strokes of numerous flat beaters. Women and children unbind the sheaves and throw them on a thick canvass cloth, that is tightly stretched by a roller at each end, round which it continually revolves, (in the same manner as in patent chaff-cutters,) thereby gradually moving the Corn forward under the incessant action of the beaters; by this means, it is affirmed that the straw remains as whole and uninjured as if thrashed by the flail, and that these machines are, in every respect, as efficient and economical as the common mills. Notwithstanding the immense loads which their high roads, being almost all paved, enable the French vehicles to carry, long-bodied carts on very high wheels, are in almost every province used instead of wagons. Let the reader picture to himself a deep cart body, formed of open rail work, and from 15 to 18 feet long, mounted on a pair of wheels 6 to 7 feet high, the whole of extraordinary strength and substance, and he will have a correct idea of a French road-cart. We suspect the continued use of such vehicles to arise much more from ancient habits, than from scientific principles; but it is, however, obvious, that two large wheels create much less friction than four smaller ones. Their cart horses, although small, are certainly strong and generally in good condition, and pavement creates little draught, but still, we are convinced that it is chiefly their carts which enable them to carry such heavy loads; that of a team of four or five good horses is usually six to seven tons, and the cart weighs near two more. From habit, the men load these carts, with such nicety, that the shaft horse does not incur inconvenience or danger, and to prevent any weight from bearing on his back in descending a hill, the cart has a windlass fixed in front, by turning which the driver can in a moment regulate the point of gravity to any degree required. These vehicles turn upon the axle like the English tumbril, and by that means casks and other articles are wound up into them, by the ropes fastened to the windlass roller in front, with extraordinary facility and expedition. The ploughs in Normandy, Picardy, and near Paris, resemble the smaller Kentish wheel-ploughs; they are usually drawn by two horses, though a few have three or four, but a driver is very rare. In French Flanders and part of Alsace, the Brabant plough is used, which is very light, tolerably well made, and has a foot in front to regulate the depth. This plough is worked with one horse in the first ploughing, (that is only two or three inches deep,) and with two horses in the subsequent ones, which increase in depth each time. In the rest, that is three-fourths, of France, the ploughs are, generally, wretched implements and of endless variety; many, towards the South, have two small wings, or thick sticks, to serve for a double mould board, with a very long chissel-shaped share. It is a common practice in Languedoc, and other southern provinces, where they usually plough with oxen, to have the beam of the plough long enough to fasten immediately to the yoke of the beasts, instead of using a chain for that purpose as in other countries. In the northern provinces they almost invariably plough with horses, but in the centre and south of France oxen are more generally used, or, what is both singular and absurd, a mixture of the two is often seen. These teams are usually numerous, although in Languedoc, and other districts, where they have a fine large breed of oxen, only two are put to a plough. The ancient method of making the beasts draw by the head, by fastening the yoke to the horns, is still generally practised. Harrows are, almost every where, made entirely of wood, and rollers are very similar to the commonest

English ones, except that they are often drawn by ropes instead of shafts. In the north, where the population is greater, and agriculture more improved, wheat is usually cut with hooks, sickles, or the Hainault scythe; but south of Paris the cradle scythe is used for all corn crops. From the dexterity, however, which habit gives the mowers, the wheat is seldom, if ever, injured, unless in a wet harvest, an event of rare occurrence in such a climate, while the saving in labor is, of course, immense. The Hainault scythe is an implement (very like that made in many parts of England, for what is called "swapping" peas, seed tares, &c. and used in a similar manner,) which is well worthy of being generally introduced. A man cuts about an acre of wheat per day with it, and it is light enough for the use of women and girls. The handle is about eighteen inches long, and the blade rather more than two feet, and shaped like that of a scythe. A stick, with a hook at the end, is held in the left hand, to draw or hold the corn in the right position to receive the stroke. It cuts the straw close to the ground, without shaking out the grain; and is particularly efficacious when the corn has become beaten down and twisted by stormy weather. We met with a singular kind of sieve in several farms. The bottom was made of half-inch oak, thickly perforated with holes, instead of open lattice-work, as in this country. These sieves are suspended by a rope from a beam, and the corn is sifted through by a boy rocking the sieve, while a man replenishes it with corn. In French Flanders, as in the Netherlands, the milk is generally churned in its natural state, instead of the cream as in this and most other countries. For this purpose very large barrels and other churns are used. An ingenious, though simple, kind of these is square, and mounted upon large rockers. Across the middle of this churn is a partition full of holes, so that, when it is rocked, the milk rushes to and fro through these apertures; in this manner the women knit, &c., while they keep the machine in regular motion with their foot. EDIT. F. J.

ART. CCXXVII.—*Proceedings of the New-York Horticultural Society.* [Continued from p. 217.]

The annual exhibition of fruits and flowers, by the New-York Horticultural Society, took place at Niblo's Garden, on Wednesday the 7th inst. The display was honored with a numerous attendance of ladies and gentleman of the first respectability and fashion. Much credit accrued to the society for the variety, excellence, and profusion of the fruits and flowers.

The show of grapes especially, did signal honor to the enterprising cultivators of the vine—affording strong grounds to believe that this luscious and wholesome fruit will, ere long, equal that produced in the most favored of foreign lands. The fact that our climate is not inimical to the perfection of the grape, being now fully confirmed, the growers of this luxury of the table should be stimulated to extended efforts in its culture. The other fruits, especially the peaches and pears, presented satisfactory proof of their improved culture, and of the congeniality of our climate for their production in a state of perfection.

The committee gratefully acknowledge their obligations to those gentlemen and fellow members of the society, who, by their liberal and voluntary contributions, crowned their efforts with success. To the ladies, in particular, they are indebted for some of the choicest fruit, and most tasteful bouquets of beautiful flowers.

In displaying these products of nature, the exhibitors labor under many disadvantages. The successive maturity and development of fruits and flowers, render it impossible to fix upon any time in which more than a very few kinds can be exhibited in their most favorable state of ripeness and beauty—and the rapid decay of the fruit, and the ephemeral existence of the cut flowers, necessarily make the exhibition short and liable to casualties. But the committee, however, are happy to state that the result has undoubtedly added to the favorable opinion entertained by the public, of the utility of the society, and of its ability to contribute largely to their amusement and rational enjoyment.

In the following list of contributors and their presentations, should their be any omissions, they will, the committee hope, be attributed to the peculiar circumstances of such exhibitions, and not to any inattention or designed neglect.

Dr. David Hosack, patron of the society, sent from his residence at Hyde Park, a very large quantity of Royal Muscadine grapes, grown without protection.

N. Prime, Esq. from his seat at Hurlgate, several varieties of grapes of large size and superior flavor, including the Austrian Muscadel, White Hamburgh, and Black Hamburgh, all of which were grown under glass. The society also received from the same gentleman, three very rich bouquets of flowers, and some very excellent pears, through the hands of Andrew Hyslop, his gardener.

J. McBrair, Lispenard-street, presented a basket of very handsome Golden Chasselas grapes grown in open air, the weight of the largest bunch was 16 oz.

Alex. Knox, Greenwich, a quantity of very handsome French apples, and a splendid bouquet of cut flowers.

Presented by a gentleman residing in Broadway, a basket of very superior Royal Muscadine, and Black Hamburgh grapes, produced from open culture; among which were several very large clusters. Of the former grape, the weight of a few of the bunches, was 35 oz. 32 oz. 32 oz. 26 oz. 24 oz.: of the latter, the weight was 19 oz. 18 oz. 15 oz.

Jacob Hagadon, Esq. sent a very beautiful cluster of white grapes, from his garden in Chatham-st.

Thomas Emmet, Esq a basket containing a great variety of very beautiful cut flowers.

Peter C. Smith, Esq. Barrow-street, a quantity of fine White grapes of excellent flavor.

A. R. Jones, from his peach orchard at Shrewsbury, N. J. sent a large basket of Malecaton peaches, superior to any hitherto exhibited to the society; also a basket of Chinchilla peaches of delicious flavor.

Dr. J. R. Rhinelander, a half dozen very handsome nectarines raised in his own garden, 25 Walker-st.

Wm. F. Pell, Esq. from his farm at Ticonderoga, a quantity of very fine white grapes, and some excellent plums and apples.

Nicholas Saltus, Esq. Beaver-st. presented some very beautiful white grapes. The weight of several clusters was 19 oz. 17 oz. 16½ oz. 16 oz. 16 oz. 15 oz.

James Thompson, Esq. Ellerslie, N. Y. an excellent water melon, weighing 41 lbs. a basket of fine Newington and Lemon clings, and three Egg plants of very unusual size.

S. Livingston, Esq. an onion from Madeira, which weighed 48 oz.

Alderman Wells, Greenwich, presented a basket of very fine pears of various kinds; also a quantity of Burgundy and of Sweetwater grapes, raised in the open air, and four splendid bouquets of cut flowers.

Alderman Tucker, sent a quantity of green Chasselas grapes in large clusters.

David Vandevourt, Esq. presented a basket of very fine white grapes produced in the open air, the weight of one bunch was 17 oz.

Alex. Masterton, Esq. Broome-st. a basket of very superior white grapes in large clusters, one of which weighed 24½ oz. grown in open air.

A. Smith, Esq. 582 Broome-st. a quantity of Miller's Burgundy grapes, in fine clusters and well ripened.

Mr. A. Cross, from his garden at Newark, N. J. twelve plates of fine fruit, among which were Vergaloos Bergamot, and Seckle pears—Summer pippin, Spice, very fine golden pippin, and other apples—Black Madeira, Isabella and native grapes—a very large cocoa nut squash, and six beautiful bouquets of flowers.

E. Wade, jun. Amity-st. presented a quantity of white Muscadine and Isabella grapes.

Charles Oakley, Vice-president of the society, from his garden at Greenwich, through A. McKinzey, his gardener, a very large quantity of the various fruits of the season, among which were superior Vergaloo pears, French prune plums, Noblesse free-stone, and Malecaton peaches, which were very large and fine. Also some very fine seedling peaches, and a basket of old Mixon clings, Roman nectarines, French bell pear; and a large quantity of grapes raised in the open air, the weight of several, being 21 oz. 19 oz. 18 oz. and one cluster raised under glass, weighing 30 oz. Also a plate of monthly strawberries, and a large number of bouquets of the most elegant flowers. The same gentleman also presented the premium gooseberries of 1829, grown by Mrs. Winter of Flushing, and preserved by him.

Daniel Kenney and O'Rourke, a most splendid bouquet of cut flowers, and a large number of ornamental plants in pots.

John Blunt, Esq. of Sing Sing, presented a number of pots of ornamental plants, both rare and beautiful.

Mr. Alex. Smith presented from the garden of Messrs. W. and T. C. Chardavoyne, 134 Cherry-st. a basket of very fine Muscadine grapes in large clusters.

Curtis Holmes, Esq. Broome-st. a basket of very beautiful fruit, and most tastefully arranged. Consisting of Magnum Bonum Plums, very large, Rose Chasselas, Golden Chasselas, Fontainbleau and Isabella grapes.

Edward Lyon, Esq. of Catskill, a basket of fine white grapes.

Alexander Smith, Nursery and Seedsman, from his garden at Newark, a plate of Spanish Filberts, Carlisle pear, Brown spice pear, and a handsome bouquet of cut flowers.

E. H. Warner, Esq. Fourth-st. a basket of fine fruit, containing Lemon clings, very handsome—Sweet-water grapes, and Brown berry pears, of delicious flavor.

Mrs. Vice Chancellor McCoun, from her garden in Warren-st. a basket of very fine white grapes in large clusters, grown in the open air.

R. M. Lawrence, Esq. a plate of native grapes of unusual size, from the farm of Wm. Sacket, Esq. Newtown, L. I.

Alden Spooner, Esq. Brooklyn, L. I. sent five varieties of grapes, including the Chasselas and Burgundy. They were in good perfection, and produced by open field cultivation, and without winter protection.

Mr. J. Maynard, from the Multiflora garden, Brooklyn, several beautiful bouquets, containing a great variety of cut flowers.

G. G. Howland, Esq. a water melon weighing 41 lbs. 8 oz. raised in open ground, presented by his gardener D. Higgins.

Col. Murray, from the garden of J. L. Mason, Esq. Washington Square, a basket of golden Chasselas grapes, two clusters of which weighed each 20 oz. grown without protection.

Mrs. Mary Schmelzel, Greenwich-st. sent a basket of very superior Sweet-water grapes, the weight of several clusters being 21 oz. 19 oz. 18 oz. 16 oz. 16 oz. 16 oz.

Stephen Van Cortlandt, Esq. Newark, N. J. several beautiful bouquets of flowers.

Mr. Shirley, a quantity of very fine flavored and large seedling peaches.

J. T. Weyman, Esq. New Rochelle, a plant of Virginia, tobacco in flower—5 feet 6 inches in height, grown at his place—and a cabbage of extraordinary size.

Mr. A. Beach, a quantity of excellent rare ripe peaches.

James K. Hamilton, Esq. eight fine plants in pots, viz. Lagerstrœmia; Cestrum nocturnum; Oleander splendens; two choice varieties of Geranium; Mottled ladies' slipper, very handsome; and Eupatorium cœlestinum. Also eight varieties China aster. Three varieties of Phlox—Verbena multiflora—Verbena mexicana—and Hemerocallis Japonica.

George Pernie, a basket of superior seedling peaches.

Professor Gimbrede, West Point, nine varieties of native grape, five of which were seedlings, the whole being uncommonly large.

Mr. Wyckoff, some fine Malecaton peaches.

Miss S. Roome, Greenwich, several elegant bouquets of cut flowers.

Miss F. H. Oakley, Greenwich, a myrtle orange tree, most tastefully and elegantly dressed with the golden immortal Snowberry; China asters in great variety, and other beautiful flowers.

Mrs. Parmentier, from her garden at Brooklyn, L. I. sent four varieties of grape, viz. White St. Pierre, Red Camarau, Isabella and Corinth; and a great variety of flowers of singular beauty, viz. Delphinium spurium, Eupatorium cœlestinum, Dahlia Parmentierii, Phlomis Leonarus? Petunia nyctaginiflora, Delphinium grandiflorum, fl. pleno, Phlox paniculata,

lata, Persicaria alba, Tendre Japonaise rose, Champney's cluster rose, Fuchsia tenella, Variegated elder, Liriodendron integrifolia, Delphinium villosum. Four Seasons' rose. Belle Chinoise rose. Also a plate of very handsome monthly strawberries.

Michael Floy, gardener, presented several new kinds of double Dahlias, viz. Achilles, Triumph royal, Rose anemone, Scarlet turban, New French white, Sulphur superb, Blood short disk, alata triflora, Leopold, Princess Victoria, George the Fourth, Royal crimson, Miller's invincible, Beauty supreme.

Dr. Ireland presented two very fine Salvia splendens, two Thunbergia alata, and that rare plant in this country Urtica pilulifera, and a large bouquet of very splendid cockscombs, &c. &c.

Mr. Phelan, gardener, also presented a fine bouquet of cut flowers, which were very handsome.

Mr. Burton of Shrewsbury, N. J. a very large squash—weight 28 lbs. 2 oz. and a basket of very fine Malecaton peaches.

T. Bridgeman, Bowery Road, six splendid boquets of cut flowers, containing about thirty beautiful varieties.

Charles Downing, gardener, Newburgh, a quantity of seedling clings very choice.

Joseph Shaw, gardener, sixth-st. very handsome bouquets of flowers, containing great variety, viz. Cockscomb, Globe amaranthus, White and Purple tri-color Balsams, Red Phlox.

Mr. Wilson, nurseryman, &c. Murray Hill, a very large quantity, comprising an extensive variety of cut flowers, arranged with his usual taste, in fanciful and elegant bouquets.

Mr. Curr also presented a variety of cut flowers, very fine.

Mr. Hogg, florist, also sent some elegant bouquets, among which were Champney's cluster, & other roses, Coreopsis grandiflora, Honeysuckle, many kinds of Larkspurs, &c. &c.

Mr. Prince sent from the Linnæan Garden, Flushing, upwards of one hundred kinds of cut flowers, among which were some very fine specimens of Cock's comb, fine Dahlias Hibiscus variegatis pleno, Hibiscus flore pleno, Hibiscus macrophyilus, Hedychium Gardnerianum, &c.

Henry Wilson, son of Wm. Wilson, presented a rich collection and great variety of flowers, most tastefully arranged in the form of a plough of ordinary size.

Mr. Jacques, N. J. presented a quantity of very fine Malecaton peaches.

Mr. Hance, Shrewsbury, N. J. sent a quantity of Malecaton peaches and old Mixon clings.

Mr. Neale sent a splendid bouquet of cut flowers, among which were observed some very beautiful double Balsams.

To increase the variety and extent of the exhibition, the society procured from Boston and its vicinity, Black Hamburgh, and White Sweet-water grapes of superior quality, raised under glass. Also the following varieties of Pears—Capiaumont, Bartlett, Cushing, Andries and Seckle. Vergaloo pears were also obtained from Long Island and West Chester. French russet pears were also procured from Staten Island. Butter pears and Bon Cretien pears from New-Jersey. Summer pippins were also got from Long Island. Fine water melons, citrons, nutmegs, &c. from Staten Island. A quantity of grapes was also procured from Catskill.

Art. CCXXVIII.—*Of Leaves.*

Leaves constitute so large a portion of plants, and perform such important offices in the vegetable economy, that they deserve to be particularly considered. Independent of the many valuable purposes to which they are applicable, there are few vegetable productions more truly beautiful.

2. The richness and variety of their colors, their admirable disposition on the branches, the variety of their forms, and even the shortness of their existence, contribute to rank them among the most interesting objects of nature.

3. When, however, we examine them and learn that their apparently simple and beautiful organs are subservient to the great end of vegetable existence, our more pleasurable sensations are converted into those of admiration and wonder.

4. Leaves are distinguished by the various external characters of their form and substance. There can be no doubt that all the varieties of form in leaves are destined to answer some great and important end, though that end may not in every instance be obvious.

5. Leaves are composed of a cuticle, parenchymatous substance, vessels of different kinds, and are commonly covered with a transparent varnish. The inferior surface in general is rougher, and of a less dark green than the superior one.

6. The cuticle abounds in pores, although they are not discernible under ordinary circumstances. The pulpy matter affords the color to the leaf. The vessels, besides the pores, are continuations of the central vessels, which convey the sap to the leaves, and those vessels that reconvey that fluid to the bark and alburnum.

7. This structure may be seen either by gently removing the external covering, and by microscopical observations, or by macerating the leaves, and then separating the pulpy matter from the vascular system. Natural skeletons of leaves are often found, which beautifully exhibit the arrangement of the vessels.

8. Leaves are seminal, radical, and those attached to the branch. They are produced from buds, and, in the early stages of their existence, are rolled up and folded in such a manner as to occupy the smallest possible space.

9. They remain dormant in the bud until the vital principle is roused to activity by the return of the season best suited to its operations. In some cases the flowers precede the leaves; but more commonly the reverse of this takes place.

10. In tropical regions vegetation does not appear to undergo this cessation, and new leaves are formed apparently without the regular intervention of buds, and at the coolest period of the year. It seems that a certain determinate temperature is required by the same plant on all occasions, whether the season be early or late.

11. After the bursting of the buds, and the first development of the leaves, their gradual increase and perfection proceed with various rapidity, according to the nature of the plant itself, and according to the favorableness of the climate and season.

12. During the progressive stages it may be conceived that numberless changes are continually taking place in the component parts of the leaf itself, as well as in the circulating juices that pass through it. Besides these changes, there are some living properties, peculiar to the leaf, which ought to be noticed.

13. The first and most remarkable of all the living phenomena of the leaf, is its irritability. This property is interesting in all its relations, whether considered as forming a link between the vegetable and animal kingdoms, or as explanatory of all the apparent actions of the plant.

14. By irritability is here meant that power in living bodies which, when acted upon by certain other powers, will induce an action in those parts in which it is inherent. Leaves, particularly those that are compound, exhibit this phenomenon in a very singular degree.

15. The causes inducing the contractions of plants are very numerous. A touch of the hand, a scratch, heat, cold, strong smells, and many other stimuli, produce this effect. The *mimosa sensitiva* (sensitive plant) is affected by almost every means that can be applied.

16. Light has a powerful influence on vegetation, and produces a very striking effect on the irritability of leaves. Plants are uniformly observed to present their leaves to the side on which the largest quantity of light is to be found.

17. Many plants close their leaves at a certain period of the day, and open them at another regular period. This may be seen in the plants of any garden; but it is particularly remarkable in the *mimosa sensitiva*, the tamarind, and several others.

18. This periodical folding of the leaves has been called by Linnæus, *the sleep of plants;* and it is not at all improbable that this folding of the leaves may, as Dr. Smith expresses it, "be useful to the vegetable constitution, as real sleep is to the animal."

19. It is familiar to all, that about the middle of autumn the leaves of all annual and of many perennial plants, gradually lose their vigor, change their color, and, having their vital powers completely exhausted, at length are separated from their parent branch and fall to the ground.

20. The singular variety of color exhibited in a grove about the end of autumn, constitutes one of the splendid objects of an autumnal landscape. Many trees do not shed their leaves at the usual season: the oak retains its leaves till spring, and others, called *evergreens*, preserve their foliage through the whole year.

21. The phenomenon of shedding the leaves is supposed, by Dr. Smith, to be a mere *sloughing*, or casting off diseased or worn-out parts: a hypothesis so simple, and containing so nearly the simple expression of the fact, that few will contend against it.

22. It is a certain fact that the leaves of plants will both receive and give out aqueous fluid.—This function is carried on in some plants equal with vigor by both the broad surfaces of the leaf; in others it takes place in a superior degree by means of the upper surface.

23. Leaves not only absorb, but also transpire fluids to a considerable extent. This operation has has been called *the perspiration of leaves*, and has been considered similar to that of the animal economy: the effects of both being evident to our senses.

24. The fluid perspired by plants is said to resemble sap. The state of the atmosphere influences very much the rapidity of perspiration. Succulent plants and evergreens perspire least; the thin leaves most. Healthy vegetables perspire a quantity of fluid equal to one third of their weight every twenty-four hours.

25. It is the prevalent opinion of philosophers that the leaves of plants, during the day, give out moisture, absorb carbonic acid gas, and emit oxygen gas and azote; and that, during the night, they absorb moisture, give out corbonic acid gas, and absorb oxygen gas.

26. Mr. Ellis supposes "that the production of oxygen is entirely confined to the leaves and other green parts of plants, and that the flowers, the fruits, the stems and roots of vegetables, both in sunshine and in the shade, convert always the oxygen gas of the air into carbonic acid."

27. The coloration of plants is a subject both interesting and difficult. Some suppose that their green color arises from the oil they contain; the rays of the sun extracting the oxygen from the outer surface, and leaving the carbon and hydrogen, which are known to be constituents of oil.

28. "The colors of plants," says Mr. Ellis, "depend primarily on the chemical action of light, in changing the constitution of their juices; and these juices, by their physical operation on the colorific rays, are then enabled to exhibit all their infinite variety of hues."—*Manual of Philosophy.*

ART. CCXXIX.—*A list of West India Seeds, in exhange for those of this Country.*

The following fresh and conditioned seeds of West India plants, capable of being raised by the help of a hot house, are offered to any horticulturist or gentleman amateur, in exchange for other indigenous or exotic seeds, hereafter designated, for the use of the Royal Botanic Garden in Havana.

Castilloe elastica, Hæmatoxylon campechianum, Bauhinia spe. nov., Macagua, (for ship timber), Convolvulus monospermum, Cupania glauba, Bignonia echinata, Mimosa tamarindorum, occid., Psidium pyriferum, (Guyava), Bursera gummifera, Dolichos miniona, Abrus precatorius, Apocine (a medical nut), Zamia pumila (a dwarf plant,) Guava trichiloides? Pinnipiniche de Indaro, (a curious sort of pinetree), Hibiscus tiliaceus, Yaitiage, (yucca?) Achra salicifolia, Achras sapota, Dolichos polyatachos, Chrisophyllum oliviformis, Anona palustris, Agathis guandiflora.

In exchange for any equal number of the seeds of the above species, the following indigenous or exotic seeds are wanted. Rheum palmatum, R. undulatum, R. rhaponticum, Aster sinensis, Euphorbia variegata, Senecio fl alba, Asclepias incarnata, Dahlia pinnata, Lobelia cardinalis, Myrica cerifera, M. regina, M. formosissima, M. lutea, Hibiscus flore pleno, Lagerstræmia alba, Thea viridis, Saphora alba, Euphorbia caput medusæ, also Cacti or prickly pear tribe.—For any of the Rose bush varieties in pots and in good order, two or three kinds of the antilles seed may be obtained. Apply to Dr. Pascalis, No. 71 Liberty-street.

Art. CCXXX.—*Pork.*

In almost every branch of agricultural pursuits, there is ample room for improvement—a call for observations and experiments. On no subject, perhaps, is there a greater need for better and more generally diffused information, than on that of making pork. We should be happy to have inquiries and communications from farmers. The following is from the Western Tiller.

As the season for making pork approaches, it may not be amiss to call the attention of the farmer to an article so important in his arrangements, and so much affecting his interest.

Amongst those who bring this article to the market, it is the frequent complaint, that they are compelled to sell it for less than it cost them. This in many cases is doubtless the fact. But it may be well to enquire whether the loss may be the result of negligence, or want of economy.

First, in the number of stock hogs which many attempt to keep through the year; without suitable provision for their support and thrift. The same quantity of food necessary to keep a large stock of hogs from absolute starvation would keep half the number in good thriving condition and require fifty per cent less of corn to make greater amount of pork in the same time, than would be made from the whole number. The pork too, being heavier, would command a higher price.

Secondly in the breed. More and better pork may be made from some breeds, nine months old than from others eighteen months old.

Thirdly in the manner of fattening. Many expect to make pork by feeding their hogs upon the ground in a small pen, which soon becomes a filthy slough.—They are in poor condition when first enclosed; and after giving them, say to the number of ten, 150 bushels of corn, they wonder they are not pork.—Their weight after this ranges from 130 to 150 pounds: whereas in a *sheltered* pen; having a good floor and bed of straw, and often cleaned, with attentive feeding, they might have reached 240 pounds, without any additional labor, save that of building a stye. Attention to the foregoing would make a difference in the farmer's profits, and he would return from the market well pleased with the usual price of pork, and be able to say to his neighbors—I have made money by my pork this year; I find that the fault heretofore has not been in the *market* but *me*.

The writer has made in a manner here described, 110 pounds of pork from 10 bushels of sound corn. If the corn had been boiled and mixed with potatoes, washed and boiled also with the corn, the quantity of pork would doubtless have been 25 per cent more.

Art. CCXXXI.—*Miscellaneous, Original, and Selected.*

The study of the Natural objects with which we are surrounded recommends itself to us by its agreeableness, by its variety, by its extent, and by its moral influence.

Some attention to the forms and peculiarities of plants and animals is by our nature imposed on us in the earliest youth; and to no individual, at any period of his life, are those departments of nature without interest. It may truly be said, that those who have seemed the most to enjoy life have increased in their love of natural objects as they increased in years; and that as their relish for other pursuits diminished, that for Natural History increased. The variety of plants and animals in every country is so great, that the study, or amusement as it may rather be called, of observing their resemblances and differences, their peculiar habits and characters, is inexhaustible. The study of minerals is one of all places and of all seasons. The study of the weather is in itself of great extent, and every day in the year affords something new. The study of geology, or what may be called the Antiquities of Natural History, is one of great and increasing importance; as unfolding to us the past history of the globe which we inhabit; and as conveying instructive information respecting soils and agriculture. Indeed, in respect to the useful arts and manufactures, it may be affirmed that as the whole of them operate with the materials of nature, they are in fact founded on a knowledge of Natural History.—*Loudon.*

Dropsy.—A very curious circumstance has recently occurred on the farm of Mr. Hankey, of Northwich, which may afford some information, and create some interest, amongst our agricultural readers in other parts of the country, as it has in the neighborhood where it happened. Having a cow which was ill and whose body was swollen to a tremendous size, and supposing the effects to proceed from flatuosity, he got an incision made in her side near the flank, when several buckets of water issued from the wound. A dropsical complaint is of rare occurrence in an animal of this nature, and excited very great surprise on the discovery. The cow did not fail in her food until the bulk of her body would not suffer her to stand on her legs to graze.

Peach Trees in Ohio.—The Western Tiller says, that Peach Trees continue to be in a more healthy state and yield much better upon grass land than upon that which is tilled. The trees upon grass land will bear when those upon the tillage land will not. The article says, "I shall not pretend to theorize on these phenomena, but the inference appears natural that we may have over doctored the trees, as is sometimes the case with a learned profession in curing diseases incident to human nature." Will not some of our farmers inform us whether the above case will not apply to apple or other fruit trees.

Potatoe Pudding.—Take half a pound of butter, and half a pound of powdered sugar, and stir them together till very light. Have ready a pound of boiled potatoes, which must be quite cold. Grate the potatoes, and beat four eggs till very thick. Stir the beaten eggs and the grated potatoes alternately, into the butter and sugar, with a gill of cream or rich milk. Add a teaspoonful of mixed spice, and a glass of wine, brandy and rosewater, mixed. Having stirred the whole very hard, put it into shells of puff paste and bake it half an hour. This quantity of the mixture is sufficient for two shells the size of soup plates. Sweet potatoe pudding may be made in the same manner.

Artificial Port Wine.—The Russians make their port wine thus:—Cider three quarts, French brandy one quart, gum kino one drachm. And the French restaurateurs imitate successfully old hock, by the following mixture: Cider three quarts, French brandy one quart, alcoholized nitre, each one drachm.

White Wheat—Jackson County, July 12, 1821.—Mr. Shaw,—*Sir:* As you were good enough some time ago to notice in your paper my twelve pound turnips, you may if you please, notice my equally productive wheat. I sowed on the 15th of October last, three quarts of a beautiful white wheat, which has been very recently introduced into our state, and on the 15th of June following, I cut it, and have since thrashed, cleaned, and measured *seventeen and a half bushels* of its net product, one bushel of which, weighed 68 pounds. From this experiment, I have not the smallest doubt but that I can cause the same kind of wheat to yield ten bushels per quart. Is this not enough, sir, to convince every planter that he cultivates too much land.—*Georgia Athenian.*

Yours, &c. Joseph J. Singleton.

Castor Oil for Lamps.—A discovery which bids fair to become of considerable importance to the agricultural community, and especially to the western country, has recently been made by Mr. Isaac Smith, of Eastville, Northampton county, Virginia, by which he is able to render castor oil fully equal to the best winter sperm for burning in lamps. We have tried the prepared oil, with a sample of which we were politely furnished by his son, Francis H. Smith of this city, the inventor of the excellent instrument of music called the harmonicon or musical glasses. We trimmed a double wick lamp with the oil, and it was left burning five hours and a half without being touched, during which time it afforded a large and highly luminous flame, perfectly free from smoke or the least degree of offensive smell. The tubes and wick were entirely free from crust till within the last half hour. The wick was raised considerably higher than we were ever able to raise it in burning the best sperm, thus affording a much larger flame; and yet the consumption of oil did not appear to be greater than usual in burning sperm. The preparation of the oil reduces the price about nine per cent. so that allowing the price of castor oil to be 95 cents, the cost of the prepared oil will be 86 cents per gallon. As Mr. Smith intends to take a patent for his improvement, we are not at liberty to give the particulars of the discovery. We have given the address of Mr. Smith above, that persons wishing further information may be able to obtain it from him direct.

American Farmer.

Indian Corn.—The summer past has been a favorable one for Indian corn, and we have never seen the crops look better in Old Genesee. Already the yellowness of the husks of some crops on early land indicate maturity, and those on later lands on such as was later planted, are out of danger of frost. Much attention should be bestowed upon this crop this month. The stalks should be cut and secured, after which, seed corn for the next year should be selected. For this purpose select such ears as grow two or three upon a stalk, and are first ripe, with good proportions, and well shaped grains. Great benefits will be derived from a continuation of this practice from year to year. We were forcibly struck with the importance of it a few days since on being shown a number of rows planted side by side, at the same time, all of which had been treated the same, but a part of the rows were already ripe; the others were yet green. The owner informed me that the difference was occasioned by planting different kinds of seed, one of which was from a farmer who practices picking his seed corn as above: the other although similar in other respects, had not been subject to the same care.—*Genesee Farmer.*

Cooking Vegetables.—There is nothing in which the difference between an elegant and an ordinary table is more seen than in the dressing of vegetables; more especially greens. They may be equally as fine at first, at one place as at another; but their look and taste are afterward very different, entirely from the careless way in which they have been cooked.

Potatoes and peas are seldom worth eating before midsummer; unripe vegetables are as insiped and unwholesome as unripe fruits.

If you wish to have vegetables delicately clean, put on your pot, make it boil, put a little salt in it, and skim it perfectly clean before you put in the greens, &c.—the quicker they boil, the greener they will be. When the vegetables sink, they are generally done enough.

Albany Horticultural Society.—The third Anniversary of this Society was celebrated on Saturday the 10 inst. The display of fruit, vegetables, and flowers, is said, in the Albany Argus, not to have been as great as on the previous anniversary, owing to an unfavorable season for the peach, pear, grape, and particularly the plum. The annual address was delivered by the Rev. Dr. Lacey—spoken of as a highly pertinent and valuable effort.

New-York Cattle Market, Monday, Sept. 12.—Our Market was well supplied this day with Cattle, from 900 to 1000 head, about 200 of which were unsold—best quality selling at $6,50—average prices about $5,75 per hundred, *sinking the Offal.*

Sheep and *Lambs*—from 2000 to 3000 met a ready sale—the former, from $2 to $5, lambs about $1,50 to 2,65 per head each.

Cows and *Calves*—but a thin supply, selling from $20 to $35.

Swine in demand and rather scarce at present—average price about $4,50 per hundred.

Hay—from 65 to 75 cts. per hundred, best quality a shade higher.

Straw sells from $2,50 to $3 per *hundred Bundles.*

[Reported for the New-York Farmer by D. Drew.]

New-York Produce Market Sept. 14.—Ashes—We have to notice a continued improvment. Considerable sales have been made at $5,20 for Pots, and $5,40 for Pearls. Flour and Meal—an advance of about 12½ cents per barrel has been obtained on Western Canal and Troy, N. Y. superfine 5,37½; Troy 5,37 to 5,50, Wester Canal 5,50 to 5,75; Wheat, N. River, bush. 1,06 to 1,12, N. Carolina 1,06 to 1,12½ Rye, Northern 80, Corn, Yellow North 73 to 75;—Beef, Mess bbl. 7,75 to 8,50, Prime 4,75 to 5,25;—Wool, Merino American Fleece, lb. 45 to 75, American pulled 45 to 65, Common 25 to 35 Pulled, Spinning 50, Lambs, 1st quality 58 to 60, 2d do. 40 to 42, 3d do. 28 to 30.

Obituary.—*Samuel L. Mitchell, M. D.* of this city, died on the 7th inst. in the 68th year of his age. In addition to the loss experienced in common with the public, by the death of this distinguished fellow-citizen, we have that of a valued correspondent and friend.

At a future time we may give a sketch of his labors and writings in relation to rural subjects.

[For the New-York Farmer.]

Art. CCXXXII.—*The Country Farmer.*—No. III.

Mr. Fleet—My work, this morning, has been rather protracted, so that you may perceive it, in the trembling of my blistered fingers. Yet, Sir, this is the only way to discipline the mind, in actual culture, so that its instructions may be of any use to others. The school of knowledge, is a school of labor. While I was busy with my hoe in the Garden, long before the sun peeped over the hills, I heard the notes of our *family Harp*, and am now prepared to come in-doors, and complete my promised sketch of the labors of a Household of Husbandry. The men and boys have all had their breakfasts, a fine dish of baked beans, with a square of old pork on the top of the dish; the the teams have been fed with chopped hay and rye-meal, moistened, and all have gone off to their labors in the field, and I have four hours to devote to you.

Wool and Flax, duly prepared to their hands, sets all the energies of my in-door household in action. Two pieces, at least, of woollen out-side cloths, must be prepared for our own use, good, substantial home-spun, one for us, and one for the manufacturers, besides Flannel, for under garments, and for bedding. All they make, more than this, is their perquisite, for laying up such things as may be wanted, by-and-by. Stocking yarn, and stockings keep the little fingers in business; with which, besides supplying all our own wants, in this way, they get a good many six-pences, by sale of these articles, and have always something to help others with, who need, and deserve help. Something has to be done, rather more frequently than I could wish, towards keeping up the necessary supply of carpeting, and they are now engaged in that way. The weaving is to be done at Hudson, but they mean to send yarn enough to make all their carpets, and pay for the weaving. So, you see, I cannot complain. One yard, I know, and by experience, of the carpeting they made a few years since, is worth two, for service, compared with the best that is 'made for sale.' Some of our acquaintances have adopted the opinion, perhaps on the persuasions of the Factory folks, that it is cheaper to purchase their carpeting, and save all this 'fuss of spinning, dyeing, &c.' as they call it: but such Farmers are not Farmers, and will, sooner or later, discover this, and to their sorrow. We know many such; but it is pride, Mr. Editor, which gets the better of their understanding. At all events, we are, and mean to be, Farmers, out-doors and in-doors, at home and abroad. By-and-by, when I shall have disposed of the ground-work of the work of the Farm, we will come to the Education of a Farmer's Family, upon which much may be said.

Butter and Cheese, Mr. Fleet, as I hope you will remember, are essential articles on the table of the Husbandman, as well as in supplying that which keeps all the wheels in order, even this old 'Fly-wheel of the Farm.' To be sure we do not use so much money as some folks, and therefore we have the more for use, when the wet day comes, as come it will, to all men. The Dairy, and I am sorry to say it, attracts much less general attention, in this state, than it deserves. A well managed dairy, is among the most profitable of the various parts of a Husbandman's business. That is, on a suitable Farm, a matter that will be discussed hereafter. Our Dairy is small, an appendage, a sort of family convenience, because our Farm is not adapted to any thing more; but it supplies us with plenty of butter and cheese, of good quality, besides some dozen of fine cheeses for our friends in town, and at a good round price. With some people, you know, a cheap thing is a vulgar thing, which does not happen to be our notion, and so we are willing to let others have their own way, as we have ours, always honestly speaking our real sentiments. Town notions, at any rate, will not do for the Farm-house, where living is to be made by Farming.

Taking in the business of a whole year, Soap is to be made, hard and soft; Candles, wick-yarn, and a supply of flax thread; bleaching to be attended to, dyeing, pickling, and something in the form of preserves, to say nothing of herbs, for cookery and medicine, besides dried fruits, and some pumpkins, for Yankee pies, all which must receive attention at the right time, as well as the every day concerns of the household. Bonnets, also, for which the straw must be cut, *to a day*, in order that the girls may save a good many dollars, and *learn how* to save them, by the dexterity of their own little fingers. The girl that cannot, or will not, make her own bonnets, either from straw braid, or any thing else, is not fit to be the wife of a Farmer, and much less to have the education of the children of a Farmer's family.

We use some 'printed goods,' as they now call calicoes and chintzes; some cotton shirtings, and shirtings, and muslins, which come in by purchase, but always from the surplus of the household. We use none, however, except of American fabric, for which the Factory folks are always glad to get the things of the Farm in exchange, a business that accommodates all parties, and is, besides, conducive to national prosperity and the public good. The body is preserved in health, by a due circulation of the blood, toward which labor contributes so much. So, also, in the body politic, the community, the state, or commonwealth, where the fruits of industry and enterprize have free action, all the energies of all the members are stimulated into vigorous activity and healthfulness, and that which is salutary to each is sure to be to all. There is nothing of that narrow policy of exclusive selfishness, in all this, which would set the dairy Farmer at enmity with the grain Farmer, the producer against the consummer; nor is there, in the principles of the real Farmer, whether he raise pork, beef, grain, or cotton, rice, indigo, or tobacco. Whatever, in short, is best for the greatest number of individuals, is best for the whole, and therefore for the public. The Virginian does not want to eat all his tobacco, nor we our wheat. Shingles, and wooden dishes, produced on the mountains, would make poor food; but the grain they exchange for, and the meat, produced in surplus, elsewhere, sustain the foresters, and form indispensable articles, every where, though these, only produced to excess.

'Sprung a leak!' The Sugar tub sprung a leak! So the children thought, but it was only that the tap at the bottom had been pulled out, in order to drain off the molasses, or syrup, from our last remaining tub of maple sugar. This occurrence reminds me of something that was probably omitted in a previous number, for the out-door folks of our Farm, the men and boys, make this excellent and delicious sweet, from our very ample Sugar Orchard, abundance for the use of the whole household. One hundred trees,

have produced us 600 lbs. a year, besides a barrel of maple molasses, and two or three of vinegar, from the latest runnings of the sap. This makes work, however; but it comes on in March, when we have time to attend to it, and by which time the boys are glad to get out of the school-house, and open the summer compaign by a 'demonstration' upon the Maple Orchard.

When I was a Farmer's boy, I felt all this. Our Tap Works were in a hollow of the breast of the '*Hog Back*' Ridge, or Hill, and never were there happier meetings, or happier comings, than occurred in that grove of gigantic sugar maples. There were a few scattered hemlocks, and belts of evergreens on three sides, in which the *Whet-Saw*, as we used to call it—a mocking-bird,—was very industrious, and very musical, while the owl delighted to hoot, and scream at us, around our evening fire. I well remember the glare of light, the wild and lovely scenery, the music of the night birds, and the occasional *Parties*, at *Sugaring-off-times*, when all the boys and girls came together, to eat, play, and be happy.

[For the New-York Farmer.]

ART. CCXXXIII.—*Remarks on Criticisms on Horticultural Exhibitions.* By "I GUESS."

Mr. EDITOR—I do not think that our learned friend "Q." of the Genessee Farmer, has given a proper "analysis" of my paper; nor a fair reply to it. I did not object to his fair criticisms, as he shows himself by the quotation from my paper, but I objected principally to his petulant *scepticism*, which he has taken care not to mention in the "analysis." Let the reader judge by the following.—"Rose Potentilla"—"Q" asks, was this "*Potentilla atrosanguinea* (dark crimson) *P. nepalensis*, or some other kind;" I reply still, it could be no other kind, but the *Potentilla formosa*, "rose (colored) Potentilla." Sweet's Flora of 1830, enumerates 100 species, and only one of them "rose colored;" here could be no mistake, because no species but the *P. formosa* is rose colored. The criticism with all the queries about it, is useless if not ill-natured. Again, "Fragrant double pink Pæonia;" here the critic inquires, "was it one of the double varities of *Pæonia albiflora?* Possibly one of several varieties of *Pæonia officinalis*, or of *Pæonia paradoxa*." I reply again, it was the kind they say it was, the "Fragrant double pink Pæony," (*P. edulis fragrans,*) no other kind is called by that name.

By the description of the Rensselaer Pink as noted by "Q." the *flowers* are said to be 7½ inches, I supposed it by that description to be a carnation, but in the New-York Farmer, it is stated from the report itself, to have been 7½ *feet* in circumference; the whole *plant*, as I suppose, measured that. Had it been so stated by the critic, the wonder would have vanished; "good" says the critic: no sir, it is not good; If you have misstated the matter, correct your own error by the report itself. "Queen of the meadows or meadow sweet, must have been the Spiræa ulmaria," I say so still, but mark what comes next; "but in his haste to find a fault in me, he blunders over his subject;" how so? "he seems to forget that two shrubby species of *Spiræa* are called Meadow sweet in Eaton's Manual; and that in Torrey's Flora, Meadow sweet is given as the English Generic name." I certainly could not forget what I never learned; forty two species of *Spiræa* are enumerated in Sweet's Flora, of which 35 species are shrubby, and 7 species, and 4 varieties perennial. Now among all the genera, only one species with its three varieties is called by the English name of Meadow sweet, the *Spiræa ulmaria.*

If Mr. Eaton, and Mr. Torrey, have named *every* species of *Spiræa*, both shrubby and herbaceous, Meadow sweets, I can only say, I hope it will not be deemed heresy or "blunder" in me, not to believe in this strange way of naming plants. "But printed reports travel further than cabbage gardeners, who *also* may have more confidence than knowledge." But I hope, sir, that printed reports will not out-travel common sense; which article, a cabbage gardener may possess; and why should he not have "confidence" in that sort of "knowledge" which is acquired by experience? and is in fact much better than travelling printed reports.

Our critic seems to haul in a little about the *Polemonium:* "I admit (he says) that my note on *Polemonium* was entirely *irrelevant*," &c.; but ashamed to own his mistake, he says, "my authority was Professor Lindley in 1829, and there is none higher in Europe." My authority for the "ten species," is Sweet's Hortus Britannicus of 1830. The two last species, *P. pulcherrimum*, and *P. moschatum*, were introduced from North America in 1827. Lindley therefore ought to have known them in 1829, as well as the other eight species.

After all I assure "Q." that I am not angry with him, and think his *fair* criticisms will be useful, and hope he will continue his observations and corrections, but pray do not make the matter worse than it really is, and if a Pink or rose flower is exhibited, in a plain way, by a plain name, (as every body does not know Latin) do not query whether rose color, means almost black, &c.

I am glad that our friend "Q." is able to get hold of the "blue spiked Veronica" again, without flinching; we left him there last time almost in despair, and ready to give all up; he seems, however, so far recovered as to hold on again, but that cold "perhaps so" implies that some doubts remain yet unsettled. I have not Lindley's work at hand, but will try to help him as much as possible. Veronica spicata, Lin. System; Veget: vol. I. p. 59. No. 1.—V. spicata, Donn's Cat. 1800. p. 2. No. 8.—Sweet's Hort. Britannicus, 1830. p. 397. No. 30. I have not opportunity to hunt up more authorities; these I hope will suffice to satisfy our Genessee friend, that there is such a species as '*Veronica spicata*,' and remove all doubts from his mind on the subject.

REMARKS.—The Editor of the Genessee Farmer may spare his "regrets," and his correspondent 'Q.' may be under no painful apprehension concerning the "balance" of our mind. We assure them that, so far as they are concerned, it has neither been ruffled nor perturbed; and that its equapoise will not be endangered by any unfriendly feeling towards them. We have no objection to "specks of war," even when there may be danger of having to retreat before honorble foes. The typographical phantasma, we expected, would arouse a Quixote with well plumed helmet, and

know not why he did not long ago appear, unless that the would-be critics felt they were in glass houses. Even now, from results of the sallies, we cannot account for the venturousness of 'Q.' except from the evidence we discover, from his style and manner, of certain prominences of the cranium. These however, when we hear him use, in reference to *his* answer to 'I Guess,' the expression, "I have just disposed of one adventurer," imply very harmless properties of the mind. But perhaps we are too personal.

To speak seriously, we commend the *object* of 'Q,' but we think any "cabbage gardener" even without his "Floras, Compends and Catalogues," would, with so wide a field open, have managed the onset with more skill. But better success for the future.

We cannot agree with the editor of the G. F. that his columns have improved since the criticism of 'Q.' have appeared; if, for instance, the account of the Rensselaer County Horticultural Society, published in No. 34, is a specimen. In that article of fifty lines, are from *one to two hundred* similar errors, to those his correspondent has been criticising. If the editor gave publicity to the errors from the copy furnished him, merely to afford data for criticism, we think it a very undignified course.—*Ed.*

Art. CCXXXIV.—*Domestic Economy—Advice to Cooks.*

The comforts of life depend in a very considerable degree on the character, abilities, and industry of those who are employed in domestic affairs. We select the following from the recent edition of the Cook's Oracle.—*Ed.*

Receive as the highest testimonies of your employers' regard, whatever observations they may make on your work: such admonitions are the most unequivocal proofs of their desire to make you thoroughly understand their taste, and their wish to retain you in their service, or they would not take the trouble to teach you.

Enter into all their plans of economy, and endeavor to make the most of every thing, as well for your own honor as your master's profit, and you will find that whatever care you take for his profit will be for your own.

Many things may be redressed in a different form from that in which they were first served, and improve the appearance of the table without increasing the expense of it.

The best way to warm cold meat is to sprinkle the joint over with a little salt, and put it in a Dutch oven, at some distance before a gentle fire, that it may warm gradually; watch it carefully, and keep turning it till it is quite hot and brown; it will take from twenty minutes to three quarters of an hour, according to its thickness.

Take care of the liquor you have boiled poultry or meat in; in five minutes you may make it into excellent soup.

No good housewife has any pretensions to rational economy who boils animal food without converting the broth into some sort of soup.

It will be to little purpose to procure good provisions, unless you have proper utensils to prepare them in: the most expert artist cannot perform his work in a perfect manner without proper instruments; you cannot have neat work without nice tools, nor can you dress victuals well without an apparatus appropriate to the work required.

The honesty of a cook must be above all suspicion: she must obtain, and (in spite of the numberless temptations, &c. that daily offer to bend her from it) preserve a character of spotless integrity and useful industry, remembering that it is the fair price of independence, which all wish for, but none without it can hope for; only a fool or a madman will be so silly or so crazy as to expect to reap where he has been too idle to sow.

If you fear meat, &c. will not keep till the time it is wanted, par-roast or par-boil it; it will then keep a couple of days longer, when it may be dressed in the usual way, only it will be done in rather less time.

Dr. Franklin in his philosophical experiments tells us, that if game or poultry be killed by electricity it will become tender in the twinkling of an eye, and if it be dressed immediately, will be delicately tender.

To encourage the best performance of the machinery of mastication, the cook must take care that her dinner is not only well cooked, but that each dish be sent to table with its proper accompaniments, in the neatest and most elegant manner.

Endeavour to avoid over-dressing roasts and boils, &c. and over-seasoning soups and sauces with salt, pepper, &c.; it is a fault which cannot be mended.

The chief business of cookery is to render food easy of digestion, and to facilitate nutrition. This is most completely accomplished by plain cookery in perfection; i. e. neither over nor under-done.

If your mistress profess to understand cookery, your best way will be to follow her directions. If you wish to please her, let her have the praise of all that is right, and cheerfully bear the blame of any thing that is wrong.

It requires the utmost skill and contrivance to have all things done as they should be, and all done together, at that critical moment when the dinner-bell sounds "to the banquet."

> "A feast must be without a fault;
> And if 't is not all right, 't is naught."

But

> "Good nature will some failings overlook,
> Forgive mischance not errors of the cook:
> As, if no salt is thrown about the dish,
> Or nice crisp'd parsley scatter'd on the fish,
> Shall we in passion from our dinner fly,
> And hopes of pardon to the cook deny,
> For things which Mrs. Glasse herself might oversee,
> And all mankind commit as well as she?"

The best rule for marketing is to pay ready money for every thing, and to deal with the most respectable tradesmen in your neighborhood.

Give your directions to your assistants, and begin your business early in the morning, or it will be impossible to have the dinner ready at the time it is ordered.

To be half an hour after the time is such a frequent fault, that there is the more merit in being ready at the appointed hour. This is a difficult task, and in the best-regulated family you can only be sure of your time by proper arrangements.

With all our love of punctuality, we must not forget the first consideration must still be, that the dinner "be well done when 't is done."

ART. CCXXXV.—*On Worms, Slugs, and on their destruction by means of common Salt.* By C. W. JOHNSON.

Great Totham, Essex, March 7, 1831.

SIR—A very considerable experience fully warrants me in the assertion, that, if any growing crop of corn, attacked by the worms or slugs, is salted at the rate of six or seven bushels per acre, the destruction of the vermin will be complete. It may be sown by hand, from a common seed basket; and there is not, let the farmer be assured, the slightest danger to be dreaded from the salt injuring the crop, but quite the contrary effect will be apparent. I have seen twenty bushels per acre applied, in March, to a crop of wheat with decided advantage. Neither let the farmer imagine that the use of salt, for that purpose, is an untried scheme. Let him take a single worm, the largest he can find, and put on it a single grain or crystal of common salt; let him do the same by the common slug which haunts his fields; and let him judge with his own eyes of the result,—the vermin will both perish immediately. And, again, let me request him, when he is convinced of the power of salt, not to commit the usual blunder of applying the remedy to the whole field, but let him, on no account, omit to leave a portion of the crop unsalted; and then, the more the worms abound, the greater the number of the slugs, the more will the benefit from the salt be apparent.

As regards its application for wheat attacked by vermin, I will not withhold from the public a communication with which I was favored from Jacob Busk, Esq. of Ponsbourn Park, in Hertfordshire, Feb. 16, 1831. He tells me—

"It is true that I have lately made a pretty free use of salt, having applied it, in the course of this and the last season, as a top-dressing to nearly two hundred acres of wheat; but my attention has not been particularly turned to what may be called its fertilizing qualities, having chiefly, and almost exclusively, had in view the destruction of worms and slugs, with which the land was very much infested.

"This object is very satisfactorily accomplished. Some small parts of our land are light and sandy, but the generality of it is stiff and strong, well adapted to the growth of beans and wheat.

"In applying the salt, little attention was paid to the quality of the land, nor was the season of the year much regarded; but those times and those spots were selected where the number and ravages of the vermin seemed most apparent, and, in every situation and at every time, the effect appeared equally beneficial.

"A little more experience may suggest some more accurate rule as to season; but I am inclined to think that the earliest will, in general, be found the best: at any rate I would avoid sowing, if I possibly could, immediately before a fall of snow, as snow produces, on places recently sprinkled with salt, an unpromising appearance, which requires some farther investigation. Perhaps the best mode may be, what we have very satisfactorily, in some instances, tried—to sow it on clover leys, and on bean stubbles intended for wheat, just before they are ploughed.

"If, however, there is some doubt as to the most eligible quality of the land or period of the year, there is none as to the fittest state of the weather and time of the day. An opportunity should be selected when the weather is mild and moist, but not rainy—when the land is damp, but not wet; and salt should never be sown when the sun is shining, but either early in the morning, before it rises, or late in the evening after it has set. Late hours we have always chosen, and, employing our ploughmen or other constant labourers, have got the work performed with a small additional wages, without interrupting at all any other business of the farm. They sow it out of the ordinary seed shuttle, at the rate of about four or five bushels to the acre. Ten or twelve men, moving at once, get over a large piece of land in an evening, and are easily drilled, so as to proceed with regularity and despatch, by a little care on the part of the superintendent.

"In the morning, each throw may be distinguished by the quantity of slime and number of dead slugs laying on the ground.

"The finer in grain and the drier the salt is the better. What we have used has been procured from town, at about 10d. per bushel, which brings the expense, with carriage and spreading, to about 6s. or 7s. per acre.

"The positive advantage I cannot state accurately in figures, but I am confident it has, in every instance, been considerable, and, in some fields, it has certainly been the means of preventing the total destruction of the crop."

With regard to salting oats, barley, &c. solely as a protection from vermin, my experience has been very limited; but I have invariably found the effect of the salt to be the same as upon wheat. My valued correspondent, J. Walker, Esq. of Benwell, near Newcastle, in a letter not long since received, says—

"I cannot, however, omit that, last season, the oats in this neighborhood were much troubled with grub; I, therefore, sowed from six to eight bushels of salt per acre, and my crop was fifty bushels, whilst that of my next neighbor was not ten, per acre."

And in Oxfordshire, in 1828, on the farm of Mr. John Slatter, of Draycote, six bushels of salt were applied by hand to a field of oats much infested with slugs and worms in the month of April; and, although an adjoining field, equally attacked by the same vermin, had its crop of oats completely destroyed, the salted crop was entirely saved. The after effects, too, of thus destroying the slugs, worms, &c. are very beneficial, for the remains of the vermin absolutely become a manure to the very plants on which they once fed; and the effect and number of such predatory vermin is much greater than is commonly imagined. Unless the crop be partially destroyed, the farmer is seldom induced to notice their ravages, although, in minor cases, the unseen loss is very considerable, and much more important than it is usually estimated.

In a former letter, inserted in your valuable Journal, I, at some length, entered into the question of the advantages of salt as a condiment for horses, cattle, and sheep, either in their corn or in hay: and, for this important purpose, I have the gratification of saying that its use has been steadily increasing, and that too, in all weathers, and in good or in adverse times. As a manure too, I shall, on a future day, have to communicate to your readers much that is important as regards its employment as a fertilizer; but that is a question far too important to be made a theme for only a portion of a single communication: and, besides, it is, unfortunately for our country, the most difficult branch of the research. As a fertilizer, however, its employment is steadily increasing; and,

where experience shall have given the farmer still more confidence, it will, I am quite sure, be considered as by far the most important agent in his possession.

In conclusion, Sir, let me again implore the agriculturist—whose crops are attacked, or suspected even of suffering, by the worms or slugs—to make a trial of the value of common salt, if it is but upon an acre; and, if he attends carefully to the instructions of those whose labours I have reported in this already lengthened letter, he will not only benefit himself, but the land which gave him birth.

Let me, also assure your numerous readers, that I shall always be ready to give the most zealous attention to any letters, reports, or experiments, in which I can be of use in this important research. Eleven years have elapsed since my Essay on Salt was published; but not a single season has passed away without some additional testimonial to the importance of the subject; and although, in this period, I have—in Mr. Curwen, Sir Thomas Bernard, and Mr. Parkes—lost three of my most talented and most zealous assistants, yet still, I am proud to say, the use of salt as an agricultural agent, in spite of prejudice and inattention, is proceeding most triumphantly. I would suggest that it would be of incalculable service, at this period of the year, if the local country papers were to quote this letter from your valuable Journal.

British Farmer's Journal.

[We are indebted to the Albany Argus, for the proceedings of the Albany Horticultural Society. For want of room, we omit, for this week, the address, and the toasts.—*Ed.*]

ART. CCXXXVI.—*Albany Horticultural Society.*

The third anniversary of the Albany Horticultural Society was celebrated, at the Mansion House in this city on the 10th inst. Although the peculiarities of the season were unfavorable to the exhibition of rich fruit and rare vegetables to the extent which had characterized the previous anniversaries, yet the display was highly creditable to the skill and emulation of our horticulturists.

As early in the forenoon, as the arrangement of the tables would admit of the exhibition of the fruits, vegetables and plants, the rooms were thrown open, and were visited for two or three hours by numerous ladies and gentlemen.

The variety of fruits did not seem to be as great as it really was, owing to the diminished quantity, and the absence, almost entirely, of the fruit which our gardens usually present in the greatest variety and excellence,—the plum; but the grapes, of which there were upwards of twenty varieties, the pear and melon, each of several kinds and of high flavor, particularly the Persian, Citron and Nutmeg melons from the garden of Mr. Slingerland, and the Bergamot, Seckle, and Vergaloo pears, from the gardens of Messrs. Delavan, Denniston, Ford, Buel, Slingerland and Mrs. Clark, were abundant, and most of them in the perfect state in which they are produced by superior and successful culture.

The culinary vegetables were, as usual, abundant and fine. Among the plants, we noticed the Okra with its delicate and rich product, from the garden of Major Talcott.

The following is a brief memorandum of such of the productions as came under our observation, with the names of their respective donors.

Presented by Edward P. Livingston, of Clermont—A basket of three kinds of grapes.

Messrs. Buel and Wilson—Isabella grapes, Bergamot and Vergaloo pears, Valparaiso squash, egg plants, Constantinople gourd (5 feet long,) the apple potatoe, blood beet, turnips.

Isaac Denniston—A basket of grapes, do. Bergamot, Seckle and Vergaloo pears.

Thomas W. Ford—A basket of orange, Bergamot and Vergaloo pears.

J. I. Godfrey—Very fine celery, oyster plants, potatoes, squashes.

Mrs. Paul Clark—A basket of Vergaloo and St. Germaine pears.

D. B. Slingerland—Twenty-three clusters of grapes, comprising the Winne, Hamburgh, Burgundy, Sweetwater, Golden chasselas, Malvoix white, Souvenir white, Chasselas white, Fontainbleau and Piedroug; the Minorca, Persian, pine apple and citron melons; the white Malecaton peach, the Downton pippin, Bergamot pears, tomatoes, Lima beans, New-Zealand spinage, vegetable marrow, Valparaiso squash.

Erastus Corning—A basket very fine and large egg plums, do. large blue gage.

Major Talcott—The Okra plant, with fruit and flowers.

I. and J. Townsend—Mexican tomatoes, bell pears, squashes, Prussian pickle cucumbers, Carolina, Long Island and kidney potatoes, winter beet, parsnips and white Turkey beans.

R. M. Meigs—A basket of fine, large and ripe Isabella grapes.

Wm. Fowler—Very large egg plants.

Abm. R. Ten Eyck—a basket of New-Orleans plums, do. damsons.

John L. Viele—A basket of Isabella grapes.

E. C. Delavan—Bergamot pears, basket grapes, do. egg plums.

T. W. Olcott—A basket Hamburg grapes.

S. Van Rensselaer—Two large water melons, one of which weighed 47½ pounds.

John Keyes Paige—very fine melons.

I. Whaden, from the garden of Stephen Van Rensselaer, jun.—Beets, white egg plants, English spinage, Lima and string beans, nasturtions, globe artichoke.

Horatio Gates Spafford, of Lansingburgh—The following varieties of grapes, viz. Madeira, white Tokay from Hungary, Constantia from Cape of Good Hope, a native grape from Pennsylvania, and the fox grape.

Alexander Walsh, of Lansingburgh—A bearing branch of Fort Magee crab, with three apples, tree five feet four inches high, two inches in circumference; apples from Hill's favorite, the Golden Harvey Brabant, trees standard dwarf from six to seven feet high and four inches in circumference. Three kinds of native grapes. Three do. foreign, the royal Muscadine, Fontinac, &c. A sample of monthly cherries. A bunch of the roan tree berries. Two pea nut plants in full bearing. Several branches of the fig, with fruit; tree two years' growth.

At three o'clock the annual address was delivered by the Rev. Dr. Lacey.

At a previous meeting of the Society, the following gentlemen were chosen offices for the ensuing year, viz.

E. C. Delavan, *President.*

Isaac Denniston,
Stephen Van Rensselaer, jun. } *V. Presidents.*
John T. Norton,

John Meads, *Treasurer.*
James G. Tracey, *Corresponding Secretary.*
B. P. Staats, *Recording Secretary.*

Art. CCXXXVII.—*Foot Rot in Sheep.*

Mr. Dick, a Veterinary Surgeon of Edinburgh, gives his opinion, in the Quarterly Journal of Agriculture, of the foot rot. Some contend that it is contagious—we should be pleased to have information from our correspondents upon the subject.—*Ed.*

"Wherever we find rich old pastures covered with moss plants, or where the hoofs (from the softness of the surface by the quantity of grass upon it,) are prevented from being worn down, the disease will be found to prevail; and in these situations where the soil is rich and moist, it will be found more particularly increased. For similar reasons, it will prevail more especially where there is a superabundance of grass; and on dry old pasture it will be found to proceed most rapidly at the season when the dews are greatest. When it occurs on light sandy soils, the dry seasons will be most liable to produce it.

"As this disease arises in consequence of the hoofs not being exposed to sufficient friction to wear them down, or keep them in their proper state, or where their natural growth is increased by the nature and, moisture of the ground, the hoofs of all the flock should be regularly rasped or pared at short intervals, say from eight days to a fortnight, according to the rapidity with which a particular pasture produces the disease. In certain situations, they might be made to travel upon a hard surface, similar to natural sheep tracks, or be folded in a place purposely prepared, upon which they could move about and wear their hoofs. For that purpose they should be placed in it every day.

"Driving the sheep along a hard road, for a short time daily, would have a similar effect; laying their tracks with gravel would also be beneficial. And, as an experiment, I would suggest to those whose lands are apt to produce the disease, to satisfy themselves by feeding an equal number of diseased sheep and sound ones together in a fold with a hard dry bottom: let that bottom be kept free from filth and moisture, and I have no doubt it will be found that, instead of the sound sheep becoming infected, the diseased ones will become sound, unless, indeed, the feet are so far destroyed as to require medical treatment; but, even in that case, the improvement will be more rapid than under other circumstances. By the means which I have stated, simple as they are, I have no doubt the foot-rot may be made to disappear from many of those places where it at present proves a great deterioration to the value of pastures.

"In conclusion, I may further add, that, while the rich pastures which are in the neighbourhood of Arthur Seat are very subject to the disease, that hill itself is not only almost entirely free from it, but if the sheep, when first infected, are removed from the low grounds to the hill, they soon get well; it, therefore, follows, that the disease may be prevented by adopting proper timely measures.

"I do not conceive it necessary to enter upon the cure of the disease. Suffice it to say, that the principal points to be attended to, are paring away the detached hoof, and dressing the surface with some caustic of which muriate of antimony is the best. But, as prevention is better than cure, I would recommend a strict investigation into the cases in each pasture, and having ascertained the true cause, the proper means of prevention will be readily suggested."

Art. CCXXXVIII.—*Hints and Receipts in Domestic Affairs.*

Enjoyment is not found so much in luxurious as in simple dishes. Fried apples are better and more wholesome than expensive preserves.

In striving for the comforts of life, seek those that are least expensive. It is better to have your house furnished with comfortable than with costly things.

Exert yourself to overcome the difficulties attending your present business rather than enter into other pursuits.

Look frequently to the pails, to see that nothing is thrown to the pigs which should have been in the grease-pot. Look to the grease-pot, and see that nothing is there which might have served to nourish your own family, or a poorer one.

See that the beef and pork are always *under* brine; and that the brine is sweet and clean.

Count towels, sheets, spoons, &c. occasionally; that those who use them may not become careless.

As far as possible, have bits of bread eaten up before they become hard. Spread those that are not eaten, and let them dry, to be pounded for puddings.

Tortoise shell and horn combs last much longer for having oil rubbed into them once in a while.

A large stone, put in the middle of a barrel of meal, is a good thing to keep it cool.

Lamps will have a less disagreeable smell if you dip your wick-yarn in strong hot vinegar, and dry it.

Put new earthen ware into cold water, and let it heat gradually, until it boils,—then cool again.—Brown earthen ware, in particular, may be toughened in this way. A handful of rye, or wheat, bran thrown in while it is boiling, will preserve the glazing, so that it will not be destroyed by acid or salt.

New England rum, constantly used to wash the hair, keeps it very clean, and free from disease, and promotes its growth a great deal more than Macassar oil. Brandy is very strengthening to the roots of the hair; but it has a hot, drying tendency, which N. E. rum has not.

If you have a greater quantity of cheeses in the house than is likely to be soon used, cover them carefully with paper, fastened on with flour paste, so as to exclude the air. In this way they may be kept free from insects for years. They should be kept in a dry cool place.

Woollens should be washed in very hot suds, and not rinsed. Lukewarm water shrinks them.

Suet and lard keep better in tin than in earthen.

Suet keeps good all the year round, if chopped and packed down in a stone jar, covered with molasses.

When molasses is used in cooking, it is a prodigious improvment to boil and skim it before you use it. It takes out the unpleasant raw taste, and makes it almost as good as sugar.

There should always be a heavy stone on the top of your pork, to keep it down. This stone is an excellent place to keep a bit of fresh meat in the summer, when you are afraid of its spoiling.

Lime pulverized, sifted through coarse muslin, and stirred up tolerably thick in white of eggs, makes a strong cement for glass and china. Plaster of Paris is still better; particularly for mending broken images of the same material.

Beef tea, for the sick, is made by broiling a tender steak nicely, seasoning it with pepper and salt, cutting it up, and pouring water over it, not quite boiling.—Put in a little water at a time, and let it stand to soak the goodness out.

Parsnips should be kept down cellar, covered up in sand, entirely excluded from the air. They are good only in the spring.

The purple paper, which comes on loaf sugar, boiled in cider, or vinegar, with a small bit of alum, makes a fine purple slate color. Done in iron.

A pailful of lye, with a piece of copperas half as big as a hen's egg boiled in it, will color a fine nankin color, which will never wash out. This is very useful for the linings of bed-quilts, comforters, &c.

Legs of mutton are very good, cured in the same way as ham. Six pounds of salt, eight ounces of saltpetre, and five pints of molasses, will make pickle enough for one hundred weight. Small legs should be kept in pickle twelve or fifteen days; if large, four or five weeks are not too much. They should be hung up a day or two to dry before they are smoked.

The salter meat is, the longer it should be boiled. If very salt, it is well to put it in soak over night; change the water while cooking.

The chuck between the neck and the shoulder, is a very good piece for roasting—for steaks, or for salting. Indeed, it is good for almost any thing; and it is cheap, being from four to five cents a pound.

Baked beans are a very simple dish, yet few cook them well. They should be put in cold water, and hung over the fire, the night before they are baked. In the morning, they should be put in a colander, and rinsed two or three times; then again placed in a kettle, with the pork you intend to bake, cover with water, and kept scalding hot for an hour or more. A pound of pork is quite enough for a quart of beans, and this is a large dinner for a common family. The rind of pork should be slashed.

There are various ways of deciding about the age of poultry. If the bottom of the breast bone, which extends down between the legs, is soft, and gives easily, it is a sign of youth; if stiff, the poultry is old. If young, the legs are lighter, and the feet do not look so hard, stiff, and worn.

There is more deception in geese than in any other kind of poultry. The above remarks are applied to them; but there are other signs more infallible. In a young goose, the cavity under the wings is very tender; it is a bad sign if you cannot, with very little trouble, push your finger directly into the flesh.—There is another means by which you may decide whether a goose be tender, if it be frozen or not. Pass the head of a pin along the breast, or sides, and if the goose be young, the skin will rip, like fine paper under a knife.

Something may be judged concerning the age of a goose by the thickness of the web between the toes. When young, this is tender and transparent; it grows coarser and harder with time.

If you want a common rice pudding to retain its flavor, do not soak it, or put it in to boil when the water is cold. Wash it, tie it in a bag, leave plenty of room for it to swell, throw it in when the water boils, and let it boil about an hour and a half.

Cider cake is very good, to be baked in small loaves. One pound and a half of flour, half a pound of sugar, quarter of a pound of butter, half a pint of cider, one teaspoonful of pearlash; spice to your taste. Bake till it turns easily in the pans, I should think about half an hour.

Art. CCXXXI.—*Miscellaneous, Original, and Selected.*

Grain.—Should a general war break out in Europe, the price of grain will probably be higher. In anticipation of this it may be policy for some farmers to sow more ground this fall. Very few farmers, however, should incur much additional expense in expectation of turmoil and war in Europe. Agriculturists, generally, should adopt a system of culture in accordance with the state, demand, and prospects of our own country, arising from our own physical and internal resources.

Peaches and Grapes.—Our markets continue to be well supplied with peaches of a good quality.—They sell from two to five dollars per basket, containing less than a bushel.

Native and Isabella grapes are much more plentiful than they were last year. The former sell from 5 to 10 cents per lb.; the latter from 12½ to 18¾ cts. White chasselas and other foreign varieties about 25 cents.

In Fulton Market we noticed that the peaches were, for the most part, in fine order, and exposed in new, painted, or clean baskets. The grapes were in the hucksters' old broken baskets, and less clean and inviting than they should be. Those who expose for sale fine fruit and vegetables, should know that it is good policy to buy new and clean, and paint old, baskets. The best of grapes should be kept on plates.

Cow Peas.—A writer in a Baltimore paper, speaks in high terms of this plant as a green manure and as summer food for cows and hogs. The Hon. Wm. Lowndes sowed an exhausted pine barren field, near Charleston, with oats, and obtained *seven* bushels.—As soon as the oats were gathered, he sowed cow peas, which, when grown to their rankest state, were ploughed in. The following summer he obtained *fourteen* bushels. A repetition of the process brought him *twenty eight* bushels—and another, the following year, *forty* bushels. The seeds may be obtained from Charleston, and other Southern ports, at 50 cents per bushel.

Potatoes.—In digging potatoes in fair weather care should be taken to knock off as little of the dirt as possible, and not to expose them to drying winds and a burning sun. Put them immediately into the cellar and cover them with earth not wet, nor very dry.

Horses.—The season is fast approaching, when farmers will take their horses from the open field, where they have enjoyed free and pure air, and confine them in stables. Here they must, in the best ventilated apartments, inhale air far different from that in the fields. Independent of the effect produced on the air, by the exhalations from their lungs, there arise vapors and gases from the pores of their skins, and their offal and urine. Nitrogen, carbonic acid, and amoniacal gases are the principal ones formed, and are the most deadly to animal life. Farmers often speak lightly of science—but every farmer who is acquainted with chemistry, would see more clearly and more forcibly the importance of ventilation.

To make Rice Bread.—Boil a pint of rice soft; add a pint of leaven; then three quarts of the flour; put it to rise in a tin or earthen vessel until it has risen sufficiently; divide it into three parts; then bake it as other bread, and you will have three large loaves.

To Salt Meat.—In the *summer* season, especially, meat is frequently spoiled by the cook forgetting to take out the kernels; one in the udder of a round of beef, in the fat in the middle of the round, those about the thick end of the flank, &c.; if these are not taken out, all the salt in the world will not keep the meat.

In *summer*, the sooner meat is salted after it is killed the better; and care must be taken to defend it from the flies.

In *winter*, it will eat the shorter and tenderer, if kept a few days (according to the temperature of the weather) until its fibre has become short and tender, as these changes do not take place after it has been acted upon by the salt.—*Frugal Housewife.*

Crops in Illinois.—For the last month the weather has been usually variable, with some very hot days, The wheat has been somewhat damaged by the damp hot weather whilst it remained in the shock, but to no very great extent, The present price is from 37½ to 50 cts. per bushel. Oats are selling in small lots at 20 cents per bushel. Should the frost hold back until the first of October, good crops of corn will be made in the middle and northern parts of the State, Potatoes are larger and of better quality than they have been for many years, but unfortunately, less ground was planted in potatoes last spring than is usually done, from the great scarcity of seed, as many lost their seed altogether by the severity of the winter.—*Western Ploughboy, August* 24.

Grapes for Tanning Leather.—A French apothecary in the neighborhood of Narbonne has published a treatise extolling the husks of grapes which have been deprived of their alcohol by distillation, as an excellent substitute for bark in tanning leather. After having prepared the skins in the usual way, he places them in the pits and covers them with grape husks. From five and thirty to five and forty days are sufficient to complete the tanning. This method, according to the author of it, offers the following advantages; The operation is much more rapid, it is much more economical: the leather has an agreeable odor instead of that of tan; and it is twice as durable as leather tanned by bark.—*Western Tiller.*

Corn Pudding.—To one quart of grated corn, add 4 eggs, well beaten, two table spoonsful of sugar, one and a half of salt, beat well together, butter your pans and bake in a hot oven, let it be about 1½ inches thick when done, eat with butter.—*Farmer's Reporter.*

Cottages in England.—In this neighborhood, [Salisbury] many of the cottages are little better than the farmers' stables; they frequently contain only a sitting-room and loft: in the latter of which all the members of the family sleep, old and young, married and single, sick and whole, and, as I have known in many instances, the living by the dead. But the misery is not confined to the bed-room: the lower apartment is very frequently a damp, cold, wretched hole, without a single convenience; often with a mud floor, which is always damp. Indeed, I have seen a spring rising in the room. It is also the receptacle for every thing; wood in one corner, potatoes in another, dirty clothes, mixed with pots and pans, in another; so that any approach to tidiness is quite out of the question: and, as the floor cannot be washed, even common cleanliness is equally impossible.—*Louden.*

Bread Fruit.—The tree which affords this, grows in all the Ladrone Islands in the South sea, in Otaheite, and now in the West Indies. The bread fruit grows upon a tree the size of a middling oak. The fruit is about the size of a child's head, and the surface is reticulated, not much unlike the surface of a truffle. It is covered with a thin skin, and has a core about the size of small knife. The eatable part is between the skin and the core: it is as white as snow, and somewhat of the consistence of new bread. It must be toasted before it is eaten, being first divided into three or four parts. Its taste is insipid, with a slight sweetness, nearly like that of wheaten bread and artichoke together. This fruit is the constant food of the inhabitants all the year, it being in season eight months.—*Hooper's Dict.*

New-York Cattle Market, Monday, Sept. 19.—The Market was full again this day, although the trade is nearly the same as last week, from 800 to 1000 head and upwards, best quality $6,50, inferior $5, average about $5,75 per hundred, *sinking the Offal.*

Sheep and *Lambs*—a pretty full market, upwards of 3000. The former from $2 to $4,50, and the latter from $1,50 to $2,50 per head each—with brisk trade at the above prices.

Cows and *Calves*— but few at market this week—selling from $25 to $35, and for some *very prime* rather more is demanded.

Swine as last week; rather scarce at market, prices, from $4 to $4,50 per hundred.

Hay—from 60 to 75 cts. per hundred with a short Market *this week.*

Straw—much the same as our last quotations, viz. from $2,50 to $3,00 per *hundred Bundles.*

[Reported for the New-York Farmer by D. Drew.]

New-York Produce Market, Sept. 21.—There has been a small advance of prices on flour and grain; Wheat Flour, N. Y. superfine, $5,50 to 5,62½, Troy, 5,75, Ohio, 5,63, Richmond City Mills, $6 to 6,25; Rye Flour, 3,87 to 4,00; Indian Meal, 3,75; Wheat, N. River, 1,12 to 1,16, Genesee, 1,16 to 120, Rye, 80; Corn, 73 to 75; Barley, 97; Oats, 40 to 50; Beef, mess 7,75 to 8,50, Prime, 4,75 to 5,25; Pork, mess, 13,75 to 14,25, Prime, 11,00 to 11,25; Butter, N. Y. dairy, 13 cts. to 16.

ART. CCXL.—*Contributions of Science to Human Comfort.*

Among all classes there are many who have but very inadequate and indefinite views of the bearings of scientific investigations on the practical concerns of life. If an essay or communication on a learned subject does not at its close, bring to light some important discovery, it is wholly barren of interest to them. The following extract from Herschel's Preliminary Discourses on the Study of Natural Philosophy, affords instances of the encouragement we have to investigate the laws of nature.—*Ed. N. Y. Farmer.*

Between the physical sciences and the arts of life subsists a constant mutual interchange of good offices, and no considerable progress can be made in the one without of necessity giving rise to corresponding steps in the other. On the one hand, every art is in some measure, and many entirely dependent on those very powers and qualities of the material world which it is the object of physical inquiry to investigate and explain; and, accordingly, abundant examples might be cited of cases where the remarks of experienced artists, or even ordinary workmen, have led to the discovery of natural qualities, elements or combinations, which have proved of the highest importance in physics.

Thus (to give an instance) a soap manufacturer remarks that the residuum of his ley, when exhausted of the alkali for which he employs it, produces a corrosion of his copper boiler for which he cannot account. He puts it into the hands of a scientific chemist for analysis, and the result is the discovery of one of the most singular and important chemical elements—iodine. The properties of this being studied, are found to occur most appositely in illustration and support of a variety of new, curious and instructive views then gaining ground in chemistry, and thus exercise a marked influence over the whole body of that science. Curiosity is excited; the origin of the new substance is traced to the sea-plants, from whose ashes the principal ingredients of soap are obtained, and ultimately go to the sea-water itself. It is thence hunted through nature, discovered in salt mines and springs, and pursued into all bodies which have a marine origin; among the rest, into sponge. A medical practitioner (Dr. Goindet of Geneva) then calls to mind a reputed remedy for the cure of one of the most grievous and unsightly disorders to which the human species is subject—the goitre; which infests the mountainous districts to an extent that in this favored land we have happily no experience of, and which was said to have been originally cured by the ashes of burnt sponge. Led by this indication, he tries the effect of iodine on that complaint, and the result establishes the extraordinary fact that this singular substance, taken as a medicine, acts with the utmost promptitude and energy on goitre, dissipating the largest and most inveterate in a short time, and acting (of course, like all medicines, even the most approved, with occasional failures) as a specific, or natural antagonist, against that odious deformity. It is thus that any accession to our knowledge of nature is sure, sooner or later, to make itself felt in some practical application, and that a benefit conferred on science by the casual observation or shrewd remark of even an unscientific or illiterate person infallibly repays itself with interest, although often in a way that could never have been at first contemplated.

It is to casual observation, reflected upon, and matured into a rational and scientific form by a mind deeply imbued with the best principles of sound philosophy, that we owe the practice of vaccination; a practice which has effectually subdued, in every country where it has been introduced, one of the most frightful scourges of the human race, and in some extirpated it altogether. Happily for us, we know only by tradition the ravages of the small-pox, as it existed among us hardly more than a century ago, and as it would in a few years infallibly exist again, were the barriers which this practice, and that of inoculation, oppose to its progress, abandoned.

Hardly inferior to this terrible scourge on land was, within the last seventy or eighty years, the scurvy at sea. The sufferings and destruction produced by this horrid disorder on board our ships, when, as a matter of course, it broke out after a few months' voyage, seem now almost incredible. Deaths to the amount of eight or ten a day in a moderate ship's company; bodies sewn up in hammocks, and washing about the decks for want of strength and spirits on the part of the miserable survivors to cast them overboard; and every form of loathsome and excruciating misery to which the human frame is susceptible—such are the pictures which the narratives of nautical adventure in those days continually offer. At present the scurvy is almost completely eradicated in the navy, partly, no doubt, from increased and increasing attention to general cleanliness, comfort and diet; but mainly from the constant use of a simple and palatable preventive, the acid of lemon, served out in daily rations.

We might instance, too, the conductor, which, in countries where thunder storms are more frequent and violent than in our own, and at sea (where they are attended with peculiar danger, both from the greater probability of accident, and its more terrible consequences when it does occur,) forms a most real and efficient preservative against the effects of lightning: the safety lamp, which enables us to walk with light and security while surrounded with an atmosphere more explosive than gunpowder: the life-boat, which cannot be sunk, and which offers relief in circumstances of all others the most distressing to humanity, and of which a recent invention promises to extend the principle to ships of the largest class:—the light-house, with the capital improvements which the lenses of Brewster and Fresnel, and the elegant lamp of lieutenant Drummond have conferred, and promise yet to confer by their wonderful powers, the one of producing the most intense light yet known, the others of conveying it undispersed to great distances:—the discovery of the disinfectant powers of chlorine, and its application to the destruction of miasma and contagion:—that of quinine, the essential principle in which reside the febrifuge qualities of the Peruvian bark, a discovery by which posterity is yet to benefit in its full extent, but which has begun already to diffuse comparative comfort and health through regions almost desolated by pestiferous exhalations: and if we desist, it is not because the list is exhausted, but because a sample, not a catalogue is intended.

One instance more, however, we will add, to illustrate the manner in which a most familiar effect, which seemed destined only to amuse children, or, at best, to furnish a philosophic toy, may become a

safeguard of human life, and a remedy for a most serious and distressing evil. In needle manufactories, the workmen who point the needles are constantly exposed to excessively minute particles of steel, which fly from the grindstones, and mix, though imperceptible to the eye, as the finest dust in the air, and are inhaled with their breath. The effect, though imperceptible on a short exposure, yet, being constantly repeated from day to day, produces a constitutional irritation dependent on the tonic properties of the steel, which is sure to terminate in pulmonary consumption; insomuch, that persons employed in this kind of work used scarcely ever to attain the age of forty years. In vain was it attempted to purify the air before its entry into the lungs by gauzes or linen guards; the dust was too fine and penetrating to be obstructed by such coarse expedients, till some ingenious person bethought him of that wonderful power which every child who searches for its mother's needle with a magnet, or admires the motions and arrangement of a few steel filings on a sheet of paper held above it, sees in exercise. Masks of magnetized steel wire are now constructed and adapted to the faces of the workmen. By these the air is not merely strained but searched in its passage through them, and each obnoxious atom arrested and removed.

ART. CCXLI.—*Proceedings of the Rensselaer County Horticultural Society.*

The eighth exhibition of the Rensselaer Horticultural Society took place at the Rensselaer House on the 13th inst. The display of fruits, vegetables, and flowers, did credit to the county—and was such as to give encouragement of a great improvement in the productions of this vicinity. The display was honored with a numerous attendance of ladies and gentlemen, which added much to the interest of the occasion.

The display of grapes, especially, was gratifying to the lovers of that luscious and wholesome fruit.

Owing to the unfavorableness of the season, the show of peaches and plums was not such as Rensselaer county could or would expect in a common season; but it is hoped, that on another similar occasion, the display of other fruits will equal that of grapes this, and convince the people of this county, that we are favored with a climate, that with proper exertions and attention to the cultivation, will produce fruits in as great variety and in as great perfection as in any other county in our state.

In the following list of contributors to the society, should there be any omission, it must not be attributed to any inattention or designed neglect.

Horatio G. Spafford, Esq. of Lansingburgh, presented a great variety of hardy grapes, among which were, Tokay, Hamburgh, Bloom, a seedling; Spafford's native early and do. fox grape—also a seedling from the Hamburgh, with a number of other varieties.

Mr. David C. Norton, of Lansingburgh, presented the white sweet water grape, white Chasselas, Spanish cluster and Hamburgh grapes, in great perfection—also eight varieties of pears, fine muskmelons, watermelons, cauliflowers, celery, savory, cabbage, sweet potatoes of a very large size, and a great variety of other vegetables, all superior of their kinds.

R. P. Hart, Esq. of Troy, presented a fine dish of peaches.

John D. Dickinson, of Troy, the president, presented fine plums, and two fine fragrant myrtles, and an orange tree, each about five feet in height, and extra large size and rich foliage.

Mr. Anthony Walter, of Lansingburgh, presented fine watermelons, and a purple egg plant of more than common large size; also a dish of fine peaches.

Mr. Henry Nezro, of Troy, Isabella, Bordeaux Purple, Schuylkill Muscadell, Grisley Frontignac grapes, of more than common size, and of a most delicious flavor.

Mr. Briggs, of Schaghticoke, a basket of very fine white sweet water grapes, the finest of the variety presented. The bunches were unusually large, three of which were attached to a piece of the vine not more than nine inches long.

Jesse Buel, Esq. of Albany, presented a very singular Gourd, above five feet in length, the seed of which came from Constantinople.

D. B. Slingerland, Esq. of Albany, presented some more than common Bergamot pears, Dowton Pippin apples, Balsam pears, white Egg plant, a new and very singular variety of corn, fine Dahlias, double and semi-double, Tuber rose, superior French Balsams, and a variety of other flowers.

Dr. Taylor, of Lansingburgh, a dish of fine peaches.

Mr. Alexander Walsh, of Lansingburgh, Royal Muscadine, White Tokay, Golden Chasselas, Black Gamut, Bourdeaux purple, Black Muscadine, and three varieties of Native grapes, Vegetable Oyster of large size, Sweet potatoes, a fine purple Egg plant, Broad beans, Pea-nuts from his garden, of this year's growth, Perennial bean, Dowington Pippin, Flower of Kent, Hawthornteen, Lamb Abbey Pearmain, and Golden Russet Apples, Warmsley new Bergamot, Golden Knob, Pear de Auch (in use Dec. to April,) de Jealousie, Pears, and a variety of Flowers.

Mr. G. B. Warren, of Troy, Black Hamburgh, Golden Chasselas, and Black Gamut grapes.

Dr. Hale, of Troy, a dish of fine Hamburgh grapes. Mr. Straton, a few fine peaches.

[For the New-York Farmer.]

ART. CCXLII.—*Reproductive Power of Nature.*

By S. F.

There are near 13,000,000 of inhabitants in the United States. On the supposition that each one consumes half a pound of bread per day, 1,200,000 tons or wagon loads would be consumed in a year. Allowing to each individual quarter of a pound of animal food, 600,000 of tons would be required to support our population. Allowing one third to be beeves, 2,000,000 of cattle; if one third were of hogs, 7,000,000; half the remainder in sheep, 15,000,000, and a greater number of fish, and other smaller animals, would be required. This is a rough, and in some measure, an exaggerated account; but it is sufficient to show the immense and wonderful provision made by providence, to supply the living with sustenance. This immense number of animals must also be fed, and nourished, from the resources of mother earth. Supposing each one of the 13,000,000 should drink a pint of water per day, more than 10,000,000 of hogsheads would be necessary.

The most striking and remarkable of the whole matter is, that all this immense quantity of vegetable and animal substance, and the water, will be decomposed, enter into combinations, and serve for sustenance to succeeding races.

ART. CCXLIII.—*Quantity and Quality of Butter consumed in the City of N.-York.* By the EDITOR.

This flourishing and great city contains about 30,000 families. Supposing each to consume one pound of butter per day, upwards of 10,000,000 of pounds would be the yearly supply. This, when considering the immense number of strangers constantly in the city, is not too great a calculation—consequently, at eighteen cents per pound, 1,800,000 dollars are given to farmers in return for their butter. A very considerable portion of the quantity consumed is very inferior—so much so, that very few good house keepers in the country could put it on their tables without extreme mortification. Much of it may have been sweet and tolerably good butter when first packed in the tubs or firkins; but owing to a want of a proper preserving, it acquires by the time it is dealt out in the dirty grocery stores, a harshness and rancidity that make it scarcely *stomachable*.

Any farmer who has a wife or has daughters that make good butter, can easily obtain customers in private families who will engage to take all he can make, at from 15 to 30 cents per pound. If the farmer has not acquaintances in the city sufficient to be customers, let him enter into any of the respectable streets, and apply at the houses. He will very soon get a sufficent number of families to take all his good wife will have to spare. If he supplies them with butter of good quality, sent in clean and fine order, he will obtain a handsome remuneration for his labor. This way of disposing of butter is becoming more common. Families have it brought to their houses in the same way as milk.

ART. CCXLIV.—*Milk Consumed in the City of New-York.* By the EDITOR.

Most of the milk used in this city is from cows fed from the slops of distilleries—a food that does not produce as good milk as clover pasture. We believe many farmers who live from one to ten miles from the city, and even fifty by steam-boats, could send their milk to the city, in the spring and fall months, and obtain eight cents a quart, on condition that they warrant it undiluted with water, and perfectly free from other substances. Many families would cheerfully pay an extra price for rich and good flavored milk.

As in most other kinds of business, there are losses attending the selling of milk. Some milk-men inform us that they loose debts as high as one or two hundred dollars. These large accounts are made with the more wealthy and fashionable families, whose expenses exceed their income, and who allow six penny items to run up to hundreds of dollars. The best course for milk-men is to sell a good article, and require daily, or at farthest, weekly payments. We believe it is not uncommon for some milk-men to have in their several cans as many different qualities of milk. The poorer classes, who can get no trust, are served with the weakest milk. This is ignoble.

Admitting that each family takes one pint of milk per day, there would be daily used 3850 gallons, amounting to nine hundred dollars, at six cents a quart. To show that little matters in small things amount to considerable sums, we would state, that if we give the milkmen six and a *quarter* cents, they daily receive from the whole city thirty seven and a half dollars more, or *fourteen thousand* in a year.

ART. CCXLV.—*Of the Manufacture of Cider.*

Cider is commonly manufactured by the grower of the fruit, though it would certainly be better for the public if it were made a distinct branch of business like brewing or distilling. "The true way to have excellent cider," Marshal observes, "is to dispose of the fruit to professional cider makers. The principal part of the prime cider, sold in London and elsewhere, is manufactured by professional men; by men who make a business of manufacturing and rectifying cider; even as distillers, rectifiers of spirit, and brewers, follow their businesses or professions; and like them too conduct their operations, more or less, on scientific principles." (Rev. of Agr. Rep. vol. ii. p. 294.) It is allowed on all hands that the operation is most slovenly performed by the farmer, and that it is very difficult to procure this liquor in good quality.

In gathering cider apples, care should be taken that they be thoroughly ripe before they are taken from the tree; otherwise the cider will be of a rough harsh taste, in spite of all the endeavors of the operator. It is observed by Crocker, in his tract on "The Art of Making and Managing Cider," that the most certain indications of the ripeness of apples, is the fragrance of their smell, and their spontaneously dropping from the trees. When they are in this state of maturity, in a dry day, the limbs may, he says, be slightly shaken, and partly disburdened of their golden store; thus taking such apples only as are ripe, and leaving the unripe longer on the trees, that they may also acquire a due degree of maturity. It may not, he thinks, be amiss to make three gatherings of the crop, keeping each by itself. The latter gathering, as well as wind-falls, can however only be employed in making inferior cider: the prime cider must be drawn from the former gatherings.

On the proper mixture of fruits, or rather on their proper separation, the merit of cider will always depend. Those whose rinds and pulp are tinged with green, or red without any mixture of yellow, as that color will disappear in the first intermixed with red. The latter kinds, which should remain on the trees till ripe enough to fall without being much shaken, are alone capable of making fine cider. Each kind should be collected separately, as noticed above, and kept till it becomes perfectly mellow. For this purpose, in the common practice of the country, they are placed in heaps of ten inches or a foot thick, and exposed to the sun and air, and rain; not being ever covered, except in very severe frosts. The strength and flavor of the future liquor are increased by keeping the fruit under cover some time before it is ground;

but unless a situation can be afforded it, in which it is exposed to a free current of air, and where it can be spread very thin, it is apt to contract an unpleasant smell, which will much affect the cider produced from it. Each heap should be examined prior to its being ground, and any decayed or green fruit carefully taken away. The expense of this will be very small, and will be amply repaid by the excellence of the liquor, and the ease with which too great a degree of fermentation may be prevented.—*Encyclopædia of Agriculture.*

[For the New-York Farmer.]

ART. CCXLVI.—*Effects of Party Politics on the State and Prospects of our Country.* By S. F.

In no one particular has the dignity of our country been more compromised and injured, than in the motives that have actuated our leading party men, and pervaded the great body of the people. The press has been considered rather as the mere *mouth* and *voice*, and not as the intellectual power of the people. By this we do not mean that intelligence and mental weight should be found in the conductors of the press alone, but that they should bear the similitude, and sustain the dignity of a great, free, and enlightened nation.

Generally the grounds of distinction in parties are so trivial, indefinite, and contradictory, that few who are not within the vortex of political strive, can bring themselves to magnify atoms, to conjure phantoms, and to substitute party fervor and devotion, for veracity and a dignified pursuit of truth. Hence it is, that the political complexion of our country is derived from those, who in profession are attached to measures, but in reality to men. It is this circumstance that renders it difficult and unpleasant to enter the arena, even when TRUTH and PATRIOTISM are known to be the objects for which we contend. In reference to the approaching contests, the principles, in most instances appear to take an importance, primary to individuals. This is as it should be. The forces appear to be marshalling into four grand divisions—all professing advocacy to measures that are for the vital good of our beloved country. One professes to be founded on the unconstitutionality of our protecting system—another, on opposition to the influence of a secret fraternity—a third, on the protection and multiplication of our internal resources—the fourth, on principles less definite and distinct, with the exception of sustaining the powers that be, and a partial advocacy of free trade. The first, in connection with the fourth, and the third appear to advance principles more immediately and directly affecting the state of agriculture—and consequently the only ones that come within the province of an agricultural paper.

On future occasions we shall continue this subject.

[For the New-York Farmer.]

ART. CCXLVII.—*Remarks on Insects injurious to Fruit, in reply to D. T.* By NOYES DARLING.

In a former communication (page 178,) I stated some facts respecting the curculio, and said, "these circumstances suggest *for trial* two modes of extirpating the insect." It was not supposed that this would amount even to a *recommendation* of those modes—they were merely *suggested* to those who might think them worthy of trial. Much less was it intended that those modes should "supercede the former projects," or other modes of destroying the insect. It was indeed remarked, that "paving under the trees, shaking them frequently, and catching the insects in a sheet, are all *ineffectual guards* against the ravages of this insect in a country full of orchards." This, if true, is a reason for trying *additional* means of destroying the enemy, if any can be devised. And my object in *suggesting* the modes above alluded to, was, not to propose them as a *substitute* for others, but to offer something in *aid* of those others which are found to be ineffectual; by which word I meant, *inadequate* to the evil. I have no where, as your correspondent "D. T." (page 205) supposes, "summarily *rejected*" any plans. We have every inducement to make use of all that have been and all that can be devised, wherever circumstances will admit of their application. If I am so understood, "D. T." will perceive that his *comments* were uncalled for.

In proof of the assertion that "paving under the trees, shaking them, and catching the insects in a sheet," "are *ineffectual guards*" against the curculio. I can only state the result of my own experiments. I carefully paved the ground under a nectarine, as far as the branches extended, without being able for three years to obtain a single ripe fruit from the tree, though it bore thousands. I have also planted a plum tree by the side of my well, where it has been agitated many times a day, without preserving but one plum. I have also caught hundreds of curculios, shaken from plum, cherry, and peach trees into a sheet, without any sensible benefit. Now this does not prove that these are *every where* useless projects and to be rejected; but it proves what I asserted, that they are "ineffectual guards in a country full of orchards;" and ineffectual, probably, because the country is full of orchards; the guarded trees being filled with ravagers from the surrounding fields.

It would seem at first thought, that nothing could be more effectual than catching the insects and crushing them. Those that are thus disposed of will doubtless do no injury afterwards; but unhappily many will have done their pernicious work before they can be caught; and at any rate enough will escape (unless in some particular location) to destroy our fruit. Active and vigilant as we may be, the insects will exceed us in those qualities. Hence it is necessary to attack them, not only while they are doing the mischief, but at other times and in other situations. In this view, something may be hoped from hogs, geese, and fowls that devour the worm or the bug; and, where these animals cannot be admitted, a favorite tree may in some place or other be protected by hauling the earth into the sun in the month of July. *Ploughing* the ground *in July* may answer the same purpose partially, but I should think not fully; though, on a large scale, it is perhaps the only practicable method of exposing the young bugs to the sun. If I am correctly informed, the great peach orchards of Shrewsbury, N. J. are *ploughed* once a fortnight during spring and summer, and are not much infested by the curculio. That this exemption from the general evil should be ascribed

to the ploughing in July, I cannot assert, though the supposition appears to me not very improbable.

After all, we have little hope, in the present state of our knowledge of the insect, but from some favorable operation of the elements. In 1826, all peaches, plums, and apricots, in this part of the country, were destroyed by a spring frost. The next year 1827, all these fruits were abundant—the curculio did no perceptible injury. Whether the insects were destroyed directly by the frost, or indirectly through the want of fruit in which to deposit their eggs, is uncertain. It would be desirable to know which is the fact. It might aid us in solving the question, whether the curculio, as asserted by Dr. Tilton, "continues its ravages from May until autumn." For if it deposits its eggs in nothing but fruit, its ravages must cease with the extinction of the fruit. I have said, "there is reason for the belief that the larvæ of the curculio, all or most of them, leave the various fruits in which they are deposited as early as the beginning of July, and that the worms found in fruits after that time have a different parent." One reason for this belief is, that after that time very little fruit is left in which their eggs can be deposited, and what little is left, is for the most part, untouched by the curculio. Let me present a hasty estimate. Of cherries, apricots, plums and peaches, in my orchard on the first of May last, there were probably 200,000. On the first of July, the number remaining on the trees did not, I am confident, exceed 500. Of that 500, perhaps 20, before the middle of August, contained a curculio; the rest continued fair. I think it would puzzle Dr. Tilton, to say where that vast multitude of curculios that deposited 199 500 eggs, before the first of July, have deposited them since that time, if they "continue their ravages." And equally puzzling it must be to devise a reason why any fruit has escaped—why only 20 eggs should be deposited, and 480 peaches left undisturbed, if this vast swarm of insects has continued its operations ever since the first of July. It may be said that they resort to apples and pears. But before the first of July the greater part of the apples, had also disappeared from the trees; most of those remaining have continued since untouched by the curculio. The worms found in them are not the larvæ of that insect. I have not succeeded in finding a curculio in a pear, at any time. The only worms that I have found in pears, (and I have taken pains to collect a considerable number this summer,) are the larvæ (I believe) of the *grey miller* mentioned in my former communication. They resemble the larvae of the curculio in having orange colored heads, but differ from them by being larger, and having a slight tinge of scarlet or brick-colour upon portions of the body. Instead of passing into the ground, they crawl under the rough bark of the trees, enclose themselves in a web, and are transformed into a chesnut colored chrysalis. Placed in a tumbler with moist earth, they form a web upon the cover of the tumbler, and there undergo their change. As none have yet left the chrysalis state, I suppose (as was the case with those which I have before preserved,) that they do not complete their metamorphosis till spring. All the worms found by me in apples, since the first of July, have been similar to those in the pear. If the worms found by "D. T." in the pear and apples, in the month of August, should prove to be the larvæ of the curculio, (which was not certain when he wrote,) they must be considered I think as stragglers and out of season. So must the four or five curculios which I have found in peaches in the same month.

In continuation of my remarks on the curculio, page 179, I have to say that, at first, the young curculios collected in a tumbler fed upon poach and plum leaves, and on unripe pears, but soon ceased to eat any thing, and are now (Sept. 8th.) mostly dead. I could not discover, with certainty, any sexual intercourse between them, nor any of those semi-circular incisions on the pears placed in the tumbler, which are made where eggs are deposited. The *cocoons*, mentioned in page 179, have not hatched.

Respecting the question, whether the worms found in May on the leaves of the grape, are the larvæ of the Chrysomela vitivora, no one seems at present to possess any facts which are decisive. I agree with "D. T." that "the best way to argue questions of this kind, is by direct reference to actual experiments made by keeping possession of the young insect till it attains its perfect state." And accordingly I will endeavor next spring to ascertain the fact by actual observation, and trust "D. T." will do the same. The *winter retreat* of the *curculio* is another object worthy of research, to which it is hoped the attention of all observers will be directed. The common opinion, that it remains in the earth in a chrysalis state during winter, is demonstrated I think to be an error. But where and in what state it is, during the season of frost, remains to be discovered.

I could not well avoid giving to this communication the air of a reply to "D. T." which I regret, as I intend always, if possible, to decline controversy, but in any event, to avoid its asperities.

Woodbridge, Con. Sept. 8th. N. DARLING.

ART. CCXLVIII.—*French Agriculture.* [Continued from page 231.]

France has never been famed for possessing superior breeds of any kinds of animals, and even now little attention is bestowed on this important branch of Rural Economy in that kingdom. We must however, except Merino Sheep, which both the government and large land-holders have long taken great pains to introduce, and flocks of Merinos or crosses between that and the native breeds, are now to be met with in most parts of France. But French Agriculturists have always neglected, in every kind of stock, to correct those defects of form that have been so much attended to in England, and which has given to our improved breeds the lightness of offal, the disposition to fatten, and all the other superior qualities they possess. The wool is the only object of solicitude in France, and the carcase of the sheep is consequently, extremely defective. The objection of the French to fat meat, especially to fat mutton is also probably an additional cause of this neglect. The government have several flocks of Merinos at Rambouillet and other places, under the superintendance of Mr. Tessier; the Count de Polignac (no relation of the ex-minister), M. Ternaux, the well known manfacturer, and many other large landed proprietors, also possess great numbers of the pure breed, and devote much attention to the quality and improvement of their wool. M. Ternaux has imported some of the Thibet goats, from the soft hair of which the

famous Cachemere shawls are made; these animals seem to thrive very well in France, and that gentleman having bred a considerable number has, for some years, manufactured from their coat the handsome shawls called French Cachemeres. In 1825 a great many Dishley sheep (improved Leicesters) were imported from England by many eminent French Agriculturists, but although that breed is admirably calculated to improve the Flemish, Picardy, and other long-wooled sheep of the north of France, it has made but little progress, nor can it until the French farmers can be persuaded to modify the treatment of their flocks. If this obstacle did not exist, they might also amazingly improve their short-woolled sheep (which are generally small and ill made) by a cross with our south Downs.

We found, generally, that the rest of the live stock; or its management on French farms, had undergone little alteration since it was described by Arthur Young, in his Travels in France; but for those of our readers who have not read that interesting work, we will mention some of the chief features. From the general absence of enclosures, as well as from the fear of wolves, the flock is always attended by a shepherd; at night, from spring to November, it is confined in a moveable fold, guarded by the dogs and shepherd (the latter sleeping in a small hut upon wheels,) and during the winter it is housed in a large sheep-house. As soon as the dew (which the French shepherds consider to rot the sheep) has evaporated, they let the flock out of the fold to pasture: but in winter they confine it to the sheep-house, when the weather is very bad. Hay and straw are then its only food, as neither turnips nor any other vegetables are yet scarcely cultivated for winter feeding sheep; some farmers are, however, beginning to give them a few potatoes. Many agriculturists keep their flock in the house nearly all the summer, feeding them on lucerne, clover, tares, &c. and it is usual to bring them in for a few hours in the heat of the day. It is surprising to see with what intelligence the dogs will keep a large flock upon a narrow strip of pasture, situated between two growing crops, and in this manner the sheep, attended by the shepherd, feed on the lays and fallows without ever trespassing on the adjoining, and often tempting, crops. The French farmers endeavour that their ewes shall lamb as early as possible in the winter, that the lambs may be the more capable of bearing the ensuing winter. The cows in the provinces of Flanders and Normandy are usually good, and the oxen of Poitou, La Marche, and Languedoc, are large, well formed, and kindly, but the French cattle are extremely various, and few are remarkable for either dairy or fatting. There is little meadow land in France: the most famous for fatting is in Normandy, on the banks or the Seine, three acres of which carry four large oxen. The watered meadows in the southern provinces likewise feed many cattle, and a great number are also fatted there with maize, (Indian corn) rye, and a species of turnip called raves. They begin feeding with the raves, and give the rye or maize (as we do oil cake,) to finish fatting when the oxen are getting meaty; when fed with raves they never have any thing to drink. The rye or maize is ground and diluted with water, and kept four or five days to become sour; hay and straw chaff, cut fine, is then mixed with it, and it is given to the beast, three times a day, about 7 lbs. each time. They do not like this food at first, but soon become very fond of it. Other farms do not grind the maze, but pour boiling water upon it, and then cover it close for several hours, which softens it; they give it in that state to cattle, pigs, or poultry, and nothing is more fattening. To increase appetite, assist digestion, and improve the health, a ball of pork-grease, of the size of an apple, is often given to fatting cattle, and in French Flanders linseed dissolved in water, is sometimes the only liquid they have to drink. Cows are milked three times a day, during summer, in almost every part of France, and in some districts they make them plough and do other work like oxen; it has no bad effect on their health, but rather diminishes their milk, especially in warm weather. In the wine countries of the south, the women and children gather chickweed and other wild plants in the vineyards, during the spring and beginning of summer, which they boil with bran, and give to their cows three times a day; they say that this is a most nourishing food, and that it increases the quantity and quality of their milk surprisingly. The very small quantity of meadow land obliges the greatest part of the cattle to be fed on clover, lucern, tares, chicory, and other artificial food; they are kept tied up in stables, where they are cleaned and currycombed like horses. In many districts mulberry, elm, and vine leaves are gathered and dried as winter food for the cattle and sheep, and often boiled with bran for cows. Faggots of the small branches of elm, poplar, oak, and many other trees, are also cut when in full leaf, and housed when sufficiently dry; the sheep brouse them with avidity during the winter, and this food is particularly wholesome.

Art. CCXLIX. — *Intemperance in Sweden.* By the Editor.

It has been remarked, that the inhabitants of northern Europe are generally more addicted to strong intoxicating drinks than those of the more southern parts. We should suppose that the state of morals would rather have implied the fact to be the reverse. This, however, not being the case, we must look for the causes in their physical condition. In the south, the vine flourishes, and consequently wines are more common and cheap. But in the north their stimulating drinks are distilled from grain, and are of a more intoxicating nature. This fact is alone sufficient to account for the difference. The following account, from an English paper, of the distilleries and their effects, shows to what an extent custom will carry a whole nation from the true path of happiness—and that the governing mass of mankind, in their present state of civilization, like infants, must learn lessons of wisdom from corporeal sensations.

"In a country, containing not more than 3,000,000 of inhabitants, there are 63,000 distilleries of brandy, (a spirit made from grain, similar to the Scottish whiskey;) and the quantity produced every year is not less than 40,000,000 gallons. It is an ascertained fact, that a greater quantity of grain comes annually into Stockholm in the shape of brandy, than what arrives or is used in the same place for the purposes of food. Of the above number of distillers, many produce only small quantities,—seeing every petty

farmer who grows any corn, erects an apparatus and makes brandy; and as this article always has a ready sale, the farmer gives his principal attention to the raising of those crops which best serve this purpose, to the comparative, in some cases the almost total neglect of other branches of agriculture; and such is the facility with which it can be procured by the lower people, that a gallon has been purchased for 10d. which generally averages 16d.

"A war of extermination has been commenced against this destructive fiend, which it is hoped will be carried forward until brandy is entirely and forever banished from household consumption. It is encouraging to add, that the newspapers, without one respectable exception, express themselves in favor of the total abstinence principle, although still dubious regarding its success here. As subordinate helps, two circumstances have been specially serviceable. The first was a discovery, that a great portion of the common brandy contained some poisonous matter, to which is attributed the death of several soldiers in the artillery garrison. An examination not only discovered verdigris, caused by the copper utensils used in distilling not being tinned, but also brought out the fact, that rotten potatoes and spoiled grain had been used to produce brandy, from which an active poison was communicated to the liquor; and that the spirit was reduced to very great weakness, and impregnated with ARSENIC, to give it a sharp taste. As none could assure themselves of protection against poisoning, many have given up using brandy. The second circumstance which has had much influence on considerate minds, is the fact that there is a scarcity of grain in the country; and while such amazing quantities are daily destroyed to furnish this murderous liquid, starvation is dreaded in some extensive districts. It is not much more than five years since many individuals *perished from hunger* within the *sight and hearing of several distilleries*, where food was transferring into brandy."

ART. CCL.—*Tolls Received on the New-York Canals.*

Among the instances of the prosperity of this section of our country, may be instanced the increasing amount of tolls collected on the Erie and Champlain Canals. Unless the internal improvements in other sections of our widely extended country divert the trade, it is easy to see that the increasing settlements in the western regions will continue to augment the income from the canals.

It is in contemplation to have a rail road for passengers, from Buffalo to the Hudson. It is thought the Canal in a few years will not be sufficient to do all the business.

The following estimate is taken from the Albany Argus.—*Ed.*

The navigation on the canals commenced about the middle of April; and up to the first of September, being four and a half months, the receipts for tolls on all the canals, have been a little more than *seven hundred and eleven thousand dollars;* and the increase, compared with the preceding year, for the same time has been *one hundred and eighty-seven thousand six hundred and sixty-five dollars.* If the receipts for the residue of the season should not fall short of those for the corresponding months last year, the tolls for 1831 will exceed *one million two hundred thousand dollars!*

The following is a comparative statement of the tolls collected upon the canals in the years 1830 and 1831, up to the close of August in each year.

ERIE AND CHAMPLAIN CANAL.

	1830.	1831.	Gain.
April,	$75,470 28	$116,299 99	$40,829 71
May,	166,138 91	213,311 39	47,172 48
June,	103,437 61	142,315 71	38,878 19
July,	84,802 15	106,858 20	22,056 05
August,	80,605 47	114,216 43	33,610 96
	$510,404 42	693,001 72	182,547 30

OSWEGO CANAL.

April,	$750 13	$1,180 29	$430 16
May,	2,058 95	2,829 06	770 11
June,	1,455 88	2,429 06	973 18
July,	1,238 10	1,790 38	552 28
August,	1,101 09	1,826 04	724 95
	$6,604 15	10,054 83	3,450 68

CAYUGA AND SENECA CANAL.

April,	$956 60	$1,214 19	$257 50
May,	1,905 79	2,663 42	757 63
June,	1,556 43	1,707 37	151 94
July,	1,095 10	1,164 59	69 49
August,	788 06	1,219 36	431 30
	$6,301 98	7,968 93	1,667 95

Gain upon the Erie & Champlain canals,		$182,547 30
Do. Oswego Canal,		3,450 68
Do. Cayuga and Seneca Canals,		1,667 95
	Total gain,	$187,665 93

ART. CCLI.—*Miscellaneous, Original and Selected.*

Preserving Apples.—Many farmers in balancing their accounts, at the end of the year, find they have made no profits. Most of these, perhaps, with care, might have been in the habit of preserving each year, some fifty to a hundred bushels of apples. These sold in the succeeding spring and summer, will bring from two to four dollars per bushel. One or two hundred dollars added to the yearly income of a farmer might be sufficient to free him from anxiety and stimulate him to further exertions.

Dried Fruit.—During the winter, spring, and first summer months, dried peaches are to be found in almost every grocery in this city. They are retailed from six to fifteen cents per quart. Those that are peeled before drying, bring the best price. It is not always the case, that they are the best flavored, but, on the contrary, often inferior. We can not account for this, except that they loose more of their flavor in drying. We would suggest to have them dryed in large pieces, with skins on, and if possible, with the pits only taken out.

If apples could be dryed so as not to alter their flavor so much, a hundred bushels would be used, where one is now. Instead of being pared and cut into small

peices, we should advise to have them merely divided into two parts, with core taken out—and we should also think, if they were cured in ovens their flavor would be far better preserved.

Soils adapted to the Different kinds of Grains and Vegetables.—Mr. FLEET, I subscribed to your paper with a view of obtaining agricultural information, preparatory to leaving the city, and giving my attention to farming. Although I find useful directions on many topics, still I do not find as many on the adaption of different plants to their appropriate soils. I should think it would add to the value of your paper, and be of real service to many of your subscribers, if some one of your distinguished correspondents would furnish you with some essays on this subject. L.

Wild Goose.—'I have never yet visited any quarter of the country,' says Wilson, where the inhabitants are not familiarly acquainted with the passing and repassing of Wild Geese.

'The general opinion here is, that they are on their way to the lakes to breed, but the inhabitants on the confines of the great lakes are equally ignorant with ourselves of the particular breeding places of those birds. There their journey north is but commencing, and how far it extends it is impossible for us at present to ascertain. They were seen by Hearne in large flocks within the arctic circle, and were then pursuing their way still farther north. They have been seen also on the dreary coast of Spitzbergen, feeding on the water's edge. It is highly probable that they extead their migrations under the very pole itself, amid the silent desolation of unknown countries, shut out from the eye of man by everlasting barriers of ice. That such places abound with suitable food we cannot for a moment doubt.

'The English at Hudson's Bay depend greatly on Geese, and in favorable seasons kill three or four thousand, and barrel them up for use. They send out their servants as well as Indians to kill them on their passage. They mimic the cackle of the Geese so well that many of them are allured to the spot where they are concealed, and are thus easily shot. When in good order, the Wild Goose weighs from ten to fourteen pounds, and is estimated to yield half a pound of feathers. It is domesticated in numerous quarters of the country, and is remarked for being extremely watchful, and more sensible of approaching changes in the atmosphere than the common Gray Goose.

Bread from Saw-dust.—Dr. Prout, in his learned paper on the ultimate composition of elementary substances, in the "Philosophical Transactions," gives a short account of M. Autenrieth of Tubigen's experiments on the conversion of lignum into food. M. Autenreith takes a piece of wood, and by frequent maceration and boiling, separates from it every thing that is soluble in water. The wood thus purified is then reduced to sawdust, repeatedly subjected to the heat of an oven, and finally ground into flour. It requires leaven in the baking, with the addition of which, it makes a uniform spongy bread. The color is rather yellowish; but when well baked and crusty, it is not only nutritious, but much superior in every respect to the brown bread made of the bran and husks of corn flour. [This is a discovery, as Mr. Herschel remarks, which renders famine next to *impossible;* and deserves a far higher degree of celebrity than it has obtained.]—*Medical Gazette.*

Neat Farms &c.—There is no surer index of a Farmer's qualifications as a good husbandman, than the external appearance of his domicil. Tight barns, strong fences and walls, gates in order, clean door yard, a house with unbroken windows and water proof, spacious wood sheds, &c, are certain indications that a snug industrious Yeoman lives within; the free use of white wash, and paint shows that he has some taste, and a clean door yard that his boys are never idle. Of this description we have many in this town, but we wish there were more. We advise those who are indifferent to these *improvements* to visit the farm of our townsman Mr. AREL B. HEYWOOD, where they will find *all that we have enumerated above;* if they do not then blush for their own slovenly management at home and resolve to follow his praise worthy example, we shall set them down as unworthy of being ranked as members of the Middlesex Agricultural Society.—*Concord Gazette.*

A sagacious if not a "learned Pig."—From the Milledgeville Recorder, we take the following singular instance of sagacity in a pig, furnished by a correspondent.

Some six or eight pigs were in the habit of visiting the stable, every time my horse was fed—I was astonished to see one, in particular, put his snout to the horse's knee, lightly rubbing it; this operation of course, caused the animal to throw his head out of the trough in order to bite the pig, and thereby lose a mouthful of corn; at first I doubted the intent of this, but a frequent repetition removed all doubts, and when from use, the horse seemed not to pay attention to this, the pig changed his knee for some other part equally sensitive; and when the operation of tickling ceased to accomplish his purpose, the cunning pig resorted to a still more efficient mode, that of biting the horse's leg.

New-York Cattle Market, Monday, Sept. 26.—About 1000 at market—prices from $5 to $6½. A very fine lot from Orange County, $7.

The prices are one dollar higher than they were last year at this time. Tallow in the rough state, commands 8 cents per lb. Last year only 5 to 5½ cents. As the present prices will not probably vary much this fall, farmers have encouragement to make their cattle extra fat.

Sheep and Lambs, in number, were about 2000; The prices vary from $2 to $6. They may be considered rather dull.

Of swine, there were about 100, at 4½

Ten to twenty cows from $20 to $30.

Hay from 60 to 75 cents.

[Reported for the New-York Farmer by D. DREW.]

[Communicated.]

A TOAST, FOR HORTICULTURAL FAIRS.

At off-hand, Sir, I give,—The Sons of toil,
Whether they labor by the head, or on the soil,
By plough, or spade, or by the mind and pen,
For all the Sons of toil are fellow-men.

FOR AN AGRICULTURAL FAIR.

'God Speed the Plough,' was sung of old,
When men loved other things, as well as gold;—
To which we add the Garden-rake, spade and hoe,
More honor'd, every where, the more men know.
Honor to useful toil, and him that honors others,
Which makes us all more like a band of brothers.

T. C. F.

[For the New-York Farmer.]

ART. CCLII.—*Monthly Address, by appointment, before the Rensselaer County Horticultural Society, Aug. 9. 1831.* By HORATIO GATES SPAFFORD, L. L. D.

Troy, August 11th, 1831.

Horatio Gates Spafford, L. L. D. Lansingburgh.

DEAR SIR—By a resolution of the Rensselaer County Horticultural Society, on the 9th inst. I was directed to request of you a copy of the address, delivered before them at that time, for publication.

Yours, Respectfully, A. P. HEARTT.
Rec. Sec'y. of the Rens. County H. S.

Gentlemen of the Society—At the regular monthly meeting, in July, I was appointed, by resolution, to address you, to-day, '*On the general Objects, and practical Utility of Horticultural Associations.*'

Historical details, concerning the origin, progress, and present condition of Horticulture, however interesting, on proper occasions, would be out of place at this time, while confined to the practical application and effects of this 'science.' I call it a science, you will observe, in compliment to the custom of the day; and before proceeding farther, will ask your attention to some few very necessary, and I believe, important distinctions. The *theory*, I think, may be a *science*, and the *practice*, an *Art*, or principally such, as it now exists in our country, or both combined, as it is desirable they should be. Mere *science*, alone, that is the science of the Books, never has, nor can make, a good Horticulturist, or Gardener, nor produced a single instance of a good *Garden!* This is a broad assumption, but a true one, and well worthy deliberate examination. To *make a good garden*, *science*, however much enlightened by its literature, its learned theories, and facts, must be indebted to *knowledge* of another sort, acquired in the *practice* of the kindred *Art*. This will be illustrated, as we advance, under some passing notices of Botany, and other sciences, not with a view to depreciate *theory*, or *science*, but to give to *practice*, and *art*, their due importance. The 'science of Agriculture,' as our '*Farmers' on paper* call it, which certainly embraces every thing in relation to Horticulture, as the whole embraces every part, has been most liberally eulogized, by writers of somewhat arrogant pretensions, and as if there were nothing of *Art* in this *science!* The common fault of such men, has been, greatly to overrate the relative value of their own attainments, and, of course, to underrate those of practical men. I need not dwell long on this topic, nor more than remind you of the lessons of past and recent experience. In an actual knowledge of facts, gained by experience and observation, the mind of many a Farmer and Gardener, is more richly stored, than that of the mere man of science, fresh from the Schools, assuming the office of Teacher! Hence come, very often, the disgusts we witness, and the mutual reproaches, of arrogance, on the one hand, and of ignorance and stupidity on the other. To compromise this difficulty, I would beg leave to say, and very gravely, that *science*, and *Art*, have much to learn of each other, because, in every *science*, there is much for *Art* to do, in the practical application of its principles, so as to make them useful; which application, is, therefore, the *art* of that *science*. This, I am aware, will sound to many ears, as rather a novel distinction. And yet it is not only a natural and necessary one, but is universally known, as such among practical men, the men of the Arts and Trades; Farmers, Gardeners, Mechanics, and especially, such men of science as combine science and art, in their operations of business.

A leading object of Horticultural associations, may be assumed to be a proper and profitable increase of the productions of the Garden, both in variety and amount. No one Garden, has soils alike adapted to all the various classes of vegetables, and hence the obvious necessity of a public market, where each can dispose of the surplus of his products. Without such a convenience, there would be, of course, private Gardens, but Horticulture, in general, as to the public, would inevitably languish. One of the delights of the Garden, to liberal and humane minds, is, that after having supplied abundance of good things, in their season, always fresh, and in fine order, for our own families, there is yet abundance, for the sons and daughters of affliction. Yet, after all this, much would be lost, absolutely wasted, but for that common repository, where sellers and buyers alike resort. In all this view of the delights and uses of the Garden, we have the example of our Washington. He gave liberally; but took the lead among a people rather much infatuated with a foolish notion of pride, in every day sending the excess of this abundance to market, or in going himself, with it, by way of example. Fortunately, for the success of the effort you are making, we have easy access to ready and ample markets.

According to the construction I give, to the task assigned me to-day, my remarks will be rather particular than general, confined more immediately to this Society; but they will be more or less susceptible of general application. Permit me, here, to call your attention to the fact, that every thing, in its proper season, is good, conducive to health, comfort, and happiness. Thus of the vegetables and fruits of the Garden. Unfortunately, however, it is too much the fashion of Horticulture, to torture these things into a *premature immaturity*, and to consider them ripe, mature, and in season! I hope our example will be more in consonance with the dictates of wisdom. Forced growths, it is well known, do not yield wholesome products. Take for example, the common potatoe. That of the shortest growth, has always, in proportion to the difference of time, the greatest quantity of rich and wholesome nutritive matter, and is of course the most healthy, as food. The earliest, though eagerly sought after, are watery, clammy, hard to digest, afford little nutriment, and are always unhealthy. If any one doubt these positions, let him appeal to his recollections of experience, or even to the products, in quantities of spirits, from samples tried in the distillery.

It may be worthy of remark, that if, in the course of the first few months of the existence of this Society, our markets are better supplied, and a generous spirit of improvement has aroused new energies, exciting competition, with an increased attention to our Gardens, something has been effected for Horticulture. To give to this impulse a right and proper direction, may now be regarded, therefore, as among the leading objects of this Society, so as to perpetuate its usefulness. Whoever strives, by care, judgment, and skill, in cultivation, to make the very most of a

small piece of ground; to obtain from it the greatest possible amount of production and profit, is actually engaged in the proper and legitimate object of Horticulture, that for which this Society was formed. We experiment, in aiming at these results, speak of them, to one another, and thus each one brings forward, as into a kind of common stock, the information he has gained, for the benefit of all. Each of us has learned something, and each has yet something to learn. Let us bear in mind, also, that learning is not all literature, any more than science is all knowledge, but that it is of many kinds, as, letters, words, things, names, and above all, a knowledge of facts, truths of things and matters, gained by experience. Let us also, in all our communications, be perfectly frank and unreserved, as to the results of even our lost experience, which may be of use to others. For, though there may be some members of this Society, who care little about the expense of their Gardens, the general object, is, and ought to be, profit. Prodigality, in bestowing upon the production of an article, much more than its market value, would not be that kind of example, for which this Society was instituted, because much practice would not produce any permanent public benefit. Yet this has been the fatal error, in most associations of this sort, granting premiums to extravagance, rather than to skill and economy, profitable examples, against which let me give you a seasonable admonition.

In thus having stated what I consider to be the proper objects of this Society, in its duty to the public, let me not be understood, as not duly appreciating the elegant and refined pleasures of those, who, as individuals, direct their chief attention to the cultivation of Flowers, and things beautiful, and rare, in their Gardens. Far be it from me, an ardent and passionate admirer of those little Family Paradises,—scenes meet for the insimination of heavenly sentiments, in the young mind, and for cherishing them, in the mind of age,—to speak of them, but with high commendation. Let your table, always, on these occasions, while loaded with the articles offered for exhibition and premium, be tastefully decorated, as now, with the blooming beauties and elegancies of the season, apt and appropriate emblems of the bounties of nature, and of that art to which your associate labors are devoted. And, if I may add one other wish, let these flowers be arranged by the skill and taste of the Ladies, whose presence shall cheer your efforts. If the Ladies cultivate a taste for Horticulture, and, by their attendance here, manifest an active interest in the success of your labors, much good will result from it. You may smile at the conceit, but undertakings, which are not thus countenanced, are too much like the comforts of bachelor's-hall, or like long, lonely, and tedious journies, all-the-way-up-hill. I would propose, to make honorary members of this Society, of such Ladies as have a fondness for the elegant pursuits of Horticulture. In one of the western Societies of this state, the Wife, and daughters, of each member, are declared to be honorary members, to which honor others are invited by election. If, to the prevailing taste for Horticultural pursuits, we are to add that for the silk culture, it is doubly important, to the success of our efforts, that we have the co-operation of these fair competitors. I see no good reason to prevent our producing, for ourselves, abundant supplies of silk, in all its forms, and of the productions of the vine. We may, at least, anticipate these results, as among the assurances of the fruits of coming years. In this region, we may never have our fields of the fig and vine, and olive: but the time is coming, when the mulberry and the vine will be associated, in every idea of the Garden and the Farm.

I have spoken to you of the *Art* of *Science*, by which let me be understood to mean, that, to make scientific knowledge practically applicable to the purposes of life, and therefore useful, *Art* has much to do, as well as mere *Science*. That this is truly a most philosophical position, greatly in danger of being overlooked, let me invite your attention to some illustrations. This is the more necessary, because, at the present day, when Science is confessedly doing very much, and we have therefore a Science for every thing, there is danger of our falling into a persuasion that every thing is necessarily comprised in the books, and in their Science. If aught I say shall seem unfriendly to the knowledge of Science, let me be distinctly understood, as pleading, not to undervalue this, but to preserve, in your minds, a due regard for that which makes this knowledge useful. Every fact, or truth, which we learn, from infancy to age, from the cradle to the grave, concerning matter and its laws, the principles of vegetation, soils, manures, and, in short, every thing, applicable and useful in our vocations, is just so much of actual Science, whether learned by study, by observation and experience alone, or in part by books; and the application of all science, you will particularly observe, is the Art of such knowledge. When we learn in this way, that is, practically the art and the science are conjoined, because, being learned together, they become one. Such, then, is practical science, that in which practical men are most thoroughly principled. The theory of science, that in which the men of the books are most engaged, is principally science without Art, to the illustration of which, with some very necessary and important distinctions, let me now call your attention.

Chemistry is a Science. This Science is supposed to have done wonders for the Art of Cookery, because it has given us, on chemical and philosophical principles, the rationale of the art, by which it claims to have made it a science! Is the Chemist then, a good Cook? And are no others such, except those who have studied this science, by book? Or is Cookery also, as much an art as a science? Can even the learned Lecturer,—fresh from the books, and the schools—who would enlighten others in the sciences of brewing, or making bread, make as good Beer, or Bread, as the practised housewife, or Cook? The making of soap, very clearly, is a Chemical process. How would he succeed in this? How, also, in the thousand other operations of art, in the successful practice of which there is so little of the science of the books? If, unlike most Lecturers and Teachers of the theory of science, he have the necessary knowledge of the kindred art, also, his lessons may be of the greater service, for he is then a practical man, for which, after all, he is no less indebted to art, than to science.

Botany also, is a Science, the Science of Vegetables. Is the Botanist, therefore, a good Gardener? Theo-

retical Botany, concerns itself, principally, in distinguishing the Genera and Species of Plants, separating them into Classes, Orders, and Families, paying little attention to their qualities and properties, to which Practical Botany, with a view to their uses, pays much more attention. The Botany of the Books, is therefore of little use to the Horticulturist; and yet popular opinion, often and earnestly solicited, seems half inclined to a persuasion, that scientific Botany is capable of doing wonders for Horticulture! He, who, as an attentive cultivator of vegetables, has paid attention to their habits, the soils most congenial to each, their local position, aspect, as to the sun and wind and weather, their uses, with their diseases, and the proper remedies, has been gaining knowledge in practical Botany, unwritten, to be sure, but of far more importance to the Gardener, than all the learning of the Books. This science, it may as well be said, is little more than a mode of ascertaining family relationships and family distinctions, a sort of general Index to the Book of Vegetable Nature, as to these distinctions, and little else, however interesting to the general student, if such there be. Men of study, and much less boys, pursuing a course of fashionably popular study, particularly under the name of science, do not stop to scrutinize its claims to usefulness, or think much of its applicability to the future purposes of life. The mastery of difficulties, is considered the high road to the honors of scholarship, and Botany, with abundantly technical learning, and hard names, presents labor enough. Hence it is that we learn so much, that is, of so little future use, and hence the efforts to enhance its real value. To the practical Gardener, if he happens to have literature enough to enable him to consult this Index, it may afford some little amusement, but, as to instruction, about as much as consulting the dictionary of his mother's tongue. The difficulty of acquiring this science, and the pains taken to persuade practical men of its importance, must plead my apology for truly stating its just pretensions.

The Science of House Keeping, in all its details, has not yet got into the Books, or rather the Sciences, as many 'ologies' as there are arts, or branches of art, concerned in this multifarious business. This is some consolation, in this age of knowledge, and wisdom, when every thing is taught by Lectures, and Lessons, not only, but by very few in number! The Science of Knitting, for example, passing from Cookery and Gardening to household manufactures, will hardly ever be taught by Lessons, in public Lectures, nor will that of sewing, spinning, or weaving, to say nothing of mending, patch-work, and darning! You may well smile at these notices, for in these cases, very obviously, *Art* is all, and *Science* nothing. So, also, the theory of making a pen, is the 'science,' because the rule of pen-making. Such as, to have a good quill, a good knife, in good order, and to cut, so and so, and, in short, to make a good pen. In order to understand the relative value of theory and practice, science and art, try your science without art, and, if a right handed pen-maker, make a pen, for the first time, with your left hand. But why introduce the Pen, in speaking of Horticulture? Because, in too much of our Horticulture, the Pen is, perhaps, more used than any implement of the Garden, which is 'literary Horticulture,' goosequill Gardening, theory, and not practice. In this science, if such it must be called, as indeed, in most, or all, they who write most, and for the instruction of others, are not practical men, as they should be, such as practically combine science and art, the only mode by which Horticulture can ever be truly raised to the character and dignity of a science. Much science, and little practice, or art, oftener leads men astray, in this business, than much of the art, and less of the theory. The power of labor, in making knowledge useful, is always undervalued by theorists. Most Husbands, as is well known to the Ladies, have a mortal dread of what they call 'literary housekeeping,' as of something monstrously out of character *for home*, a 'down-at-the-heels,' 'out-of-joint' sort of concern. Let me be excused for informing Wives, by way of set-off, that, as to real comfort for their families, they may safely form about a like estimate of the 'scientific Gardening' of theoretic Botanists, with only science for their guide.

The theory, in short, in all other sciences, is one thing, and the practice another. Both ought to be united in every science, truly so called, which would then be the knowledge of such science, not in part, but in whole, available and useful, by being brought directly into the actual business of life. The only medium of this union, however, is labor, the labor of a learned and scientific head, mind, body and hands, enlightened by the truths of fact from scientifics, and adroit, by practice, in their application, and, in their union with truths of fact, from more experience. The result of such course would be, a due separation of dross from the metal, the useless from the useful, the rejection of hosts of Books, and more of the Science of Life, purely useful knowledge. Books are not so written, however, and hence the necessity for the distinctions I have dwelt so much upon, for the propriety of which I appeal to the sound understanding of every observant and reflecting mind.

There are certain general principles, with which, in a successful prosecution of the business of Horticulture, it is highly necessary for us to be well informed. Such, for example, as those parts of science, which enable us to adapt our manures to the several soils we cultivate, our several crops to the soils, and to understand the fertilizing principle. So, also, the general principles of vegetable life, and its action. The theory of these, may be found in the books; but the application is gained only by observation and experience. If the practical man, in acquiring this, be instructed in these principles, and will reduce them to practice, he combines Science and Art, the true philosophy of Vegetable Culture, whether upon a Farm, on a great scale, or in a Garden, a smaller piece of ground. The Garden, I maintain, is the proper field, at least in public schools, for the actual acquirement of the necessary knowledge of Agriculture. He who can manage a Garden well, would, also a Farm, if the Farm be not too large for his means. Experience, in a Garden, is soon learned, and learned at little expense, both of time and money. When the Garden is made profitable, enlarge it, or extend the same system over more ground, and the Garden soon becomes a Farm, and that Farm a Garden! This is truly Agriculture, 'Scientific Agriculture,' pleasing and profitable. To be sure we must not talk about our hundreds of acres, in such a Farm, or a Virginia 'plantation,' of even a thousand, on which

to be made poor, by running over, and not cultivating, by far too much land. We may confidently count on larger profits, however, with far less of perplexity, and the '*wear and tear*' of life. I regard it as one of the important objects of this Society, to demonstrate, that what are now called Farms, are, generally, by far too large. Horticulture, well managed, having a good market, will turn out more clear profit, from some two or three to five acres, than the average of our farms of one to two or three hundred.

The late Judge Hoag, of Nassau, in this county, owned a very large Farm, and of excellent land, embracing the village. He was a man of substance, one of our 'great Farmers,' having houses full of working people, and, as usual, abundance of horses for teams, and plenty of negroes to drive them. They used to summer-fallow, and sow with winter grain, a hundred or more acres, besides having immense fields of corn, oats, barley, buck-wheat, and meadows, with pastures, and great stock of cattle. Some 20 odd years ago, an Englishman, a Farmer, hired a small piece of ground, in the village, say of 40 or 50 acres, and had the audacity to call it a Farm, and to tell Judge Hoag, that he thought it such, and large enough! After a few years, the Judge told me, and with wonder, that this Mr. Cock, actually made more clear profit, every year, from that little piece of ground, than he did from his Farm, of perhaps as many hundred acres! This Mr. Cock, had the benefit of succeeding a very slovenly and neglectful tenant, and knew well how to use what he had neglected, immense quantities of well rotted manure. But the main secret of his success, is, that he was careful to apply all his means skilfully, at the right time, and in the right place: so to concentrate, and condense his applied labors, manures, and means of all sorts, that nothing should be lost, by being spread too thin, extended over too much ground. You will permit me to remark gentlemen, in passing, that social intelligence, made up of individual, is, unlike the case we have last been contemplating, more benign in its influence, and more powerful, the more widely it is spread. The materials must first be collected, however, and it is one purpose of this association, to collect, and diffuse, for mutual benefit, the well matured fruits of individual observation and experience.

> For even truths, unsought, unknown, untold,
> Are useless as the miser's heaps of gold;
> Or other unspread heaps, not very rare,
> Which, rotting, but contaminate the air.

The culture of the Vine, in our country, which now, happily engages so much attention, is necessarily attended with some difficulty, because of our want of experience in this culture. It so happens, in this as in most cases, that, from various causes, much of what has been learned by experience in other countries, is lost to us, and our only safe guide must therefore be, our own experience. I need not dwell on the reasons for this conclusion. Foreigners, bred to the business, in various parts of Europe, having come into various and remote parts of the United States, have here attempted their farther modes of culture, and with the Vines of their own country, and have been reluctantly compelled, both to vary these modes, and to select other varieties of the Vine. Their publications in Europe, though of some use to us, are not to be looked to as safe guides. Some diversity of opinion, on this subject, is known to exist among us, as well as in relation to the kinds and varieties of the Vine best adapted to our soil and climate. Experience, so far as I know, where nothing has operated to give an undue bias to the mind, has very generally resulted in a preference for the best varieties of our native Vines. There are some persons, however, who sneer at all this, of course, and affect to despise all Grapes, as every thing else, of American origin. Adlum, of Georgetown, near Washington City, who has had more experience in this way, and more success, than any other man in the United States, decidedly gives his opinion, and practises upon it, in favor of our native Vines. I could, were the purpose of this paper to go into a discussion of this subject, refer to many others, men of sense, and experience, who have come to a like conclusion.

On the principle, gentlemen, that each of us comes here to learn all we can, by having thrown into common stock whatever each may have learned, I propose to give you a brief detail of my own very limited experience in the Culture of the Vine, with such remarks as seem to me called for on this occasion. My Vines are confined to a pretty large Village Garden, the soil a very coarse and rather barren gravel, the subsoil a clean loose sand, such as used in lime-mortar, on a rock of argillite. They are, the oldest, in their sixth year; some five years old, 4, 3, 2 and 1, about 200 in all, hardly 100 yet in bearing, and trained in various ways, as on arbors, stakes, and on the outfences. I have 30 odd kinds and varieties, embracing several of the most celebrated Grapes of the old world, which are ascertained to be genuine; and several of American origin, selected with great care, and from various and remote parts of the United States. With but little experience, and that 20 odd years old, I commenced this culture here, in 1826, full of zeal for the experiment, which has been quite successful. As our country is full of prejudices, on this topic, my detail shall be the more minute, even though, on this occasion, it may prove less generally interesting. The Vine, I knew, is a long lived vegetable, (having seen some of at least 100 years old) propagating readily by cuttings, and layers, but re-produced only by seed. I therefore commenced by all these processes, having purchased some sorts and cuttings, and thanks to my late friend, Dufour, soon succeeded in engrafting, on the roots of the wild and unpromising vines of the woods, which gave me fruit the first or second year. In order to make the re-production perfect, I plant some seed every year, as directed below, and let some of the unfruitful seedling plants grow constantly among the fruitful vines, a family with all its members, a practice that I would recommend to every considerable cultivator.

As the vine is so long lived, its first effort must of course be to make wood. The older the vine, from its seed, or parent stock, or in its present setting, the less, every year after it has attained to maturity, will be its quantity of wood made; and the more, in proportion, while advancing to maturity of fruit. Thus much, on general principles, seemed self evident. As some varieties make more wood and foliage than others, they are variously adapted to modes of training, as arbors, trellisses, stakes, and some even require, for their fruit, more shade than they make. I soon

found out also, that it was a very easy matter, by a little seasonable attention, to give the Vines such direction, and form, as might be desirable; few and long branches, or many and short. This is nothing new, but still it may be a convenience, and there are certainly some who do not yet know it. The leaves, also, by a little attention, may be made to grow to double their natural size, and the fruit may be influenced in the same way. The Vine, unlike even the very best of children, being always obedient to fixed laws, pays perfect obedience to every direction, and thus affords an instructive lesson, for the best and wisest of us, young or old. Thus, when setting for fruit, if you are seasonable, and judge that the blossoms be not in due proportion to the ability of the Vine, a touch of the hand will cause new blossoms soon to come forth, even to the overloading of the vine, or branch. I have reserved several for experiment in this way, purposely for your inspection, though it may jeopardise the health, or perhaps the life of the branch, or vine.

The Vine wants the first beams of the morning sun, and should be so trained as to extend over an ample surface, when its foliage will become luxuriantly rich and beautiful. Thickets of this foliage, are nests for insects, and ruinous to the fruit, both by harboring enemies, and by excluding a free circulation of air, by which the leaves become sickly. No rotting wood should be left in the ground, among grape vines; not even the little prunings from cuttings, as I have been taught by my own experience. The soil must be kept sweet and warm. Mushrooms, among vines, are as much out of place as foxes among the poultry of the farm-yard.

The leaves of the Vine, have a very powerful agency in the due preparation of its juices, for the fruit. During a part of each season of vegetation, the sap is kept principally in the leaves, where it is elaborated, for its future destination and use. The leaves which have been gradually increasing in size, from the first expansion of their buds, at this period become more fleshy, increase in thicknes and weight, assume a new shade of color, and soon begin to grow smaller, at first in diameter, thinner, lighter, lose their fleshy substance and appearance, assume a new color, attain maturity, and die. As soon as they fall, and the stems have dropped off the vine, often, in vigorous growths, and particularly if the leaves have been very large, the latter some days later, all the functions of life, for that year, are completed. The sap of the Vine, designed for next year, and to preserve its life through winter, gradually descends to the roots, leaving the vine leafless, comparatively dry, the fruit shrivels, and has, perhaps, passed its maturity, except for certain qualities of wine. Now is the season for transplanting, pruning, taking and planting cuttings, and and for planting the seeds of the vine, the whole fruit, just as it grows. However bountifully mother nature may have clothed the seed of her choice fruits, and with substances however delicious, we should, in planting this seed, give back to her bosom all this covering, all this bounty. In planting such seed as that of the Grape, the peach, plum, and cherry, we should always bear this in mind, and if the remark comes in, here, rather out of place, it will be none the less likely to be remembered. I have practised upon this plan for many years, to plant such seed and fruit, selecting the earliest and best when fully ripe; and besides gaining one year, in getting fruit from it, am satisfied that we thus get always, as good as the parent kinds, or variety, and not unfrequently even a richer, finer fruit, and earlier in the season.

The Vine, unlike all other vegetables, with which our practical men have become much acquainted, has its air vessels, and sap vessels, united closely in action, in every part, the roots, the wood above ground, and in all the branches, and leaves. The knowledge of this fact so important to be known, as in the art of ingrafting, for it is a peculiarity, is here only mentioned incidently, in reference to another object. There is a certain time, then, when the duly elaborated sap, from the leaf, descends from that organ into the fruit, in order to perfect it, in its full and peculiar richness and flavor. At this time, it is therefore essential to the perfection and character of the fruit, that all this shall have been alike duly prepared, by the elaborating processes of the leaves. This can only be secured, by some care in pruning, and in the nipping off of the young and growing leaves, on the fruit branches, above the fruit. If the ends of these branches be sending out wood, and young leaves, the supply of ripened sap is scanty, and some of it will also be in a green, and crude state, the deposit of which, in the ripening fruit, retards its coming to maturity, and also injures its quality. I therefore take care, by a little seasonable attention, that such fruit bearing branches as I select for experiment, shall have no leaves on them, above the fruit, which are not of their full size, and of the color of maturity. This precaution, which is attended with much less trouble than would be supposed, by all this detail, enables me to have perfect fruit, the berries all ripening at the same period of time, rich, sweet, abounding in saccharine matter and the peculiar vinous flavor, qualities wanted for wine, as well as for the palate, on the table. I do not say that this care is absolutely necessary, in all cases: but I state facts, learned by experience, and give both the theory and the practice, to which others can attach their own estimate, of value, or importance. On young vines, certainly, there is obviously more occasion for it, than on old ones; and all of ours, in this country, are yet young, compared with those of other countries, or with the great age of the vine, many of which are known to have been fruitful for hundreds of years.

Our British ancestors, living in a climate of fogs, clouds, and rain, having little sunshine, compared with our country, have, by their publications, introduced among us a foolish and unnatural practice in tearing off promiscuously the leaves of the grape vine, so as to let in the rays of the sun. In our climate, where the sun has such power, this is always an injury, if the direct rays strike the fruit, besides depriving it of the sap of those leaves. I have seen many berries, and even whole clusters, so exposed, literally burnt up, or heated and their juices partially fermented, in this way, and so will others, if they will be particular in their observations. My practice is, to provide for a free circulation of air, with its light, and heat, excluding the direct rays of the sun from the fruit, but exposed to all the influence of its reflected warmth and light. I am also particular in admitting the direct rays of the sun around the roots of the vine, especially its morning beams, so as to have the ground made warm,

duly vivified, and ready for all its functions of co-operation with those of the vine. In dry weather, I stir the ground around the roots occasionally, and in wet and dry, I sprinkle it with quick lime, almost the only manure I use. When in blossom however, I dig in some well rotted yard manure, with which lime had been mixed pretty plentifully, while rotting, with horn shavings, *vegetable mold*, and all I can get of bone dust. Lime however, is that which gives the principal value to this compost, for such soils as ours. It is much less expensive than is generally supposed, and ought to be more used. It may not be amiss to add, that, in my culture of the vine, strict regard is paid to economy, and profit, so as to make the example a good one. That, after sufficient experience, I cultivate none but hardy vines, for reasons soon to be stated and that the whole expense of my vines, arbors, stakes, &c., was amply repaid by the fruit of the third year. The product is now annually increasing, and worth 100 dollars a year, besides a generous supply for my family and friends, in season from August to late in November.

Thus, gentlemen, I have endeavored to discharge the duties you assigned to me. A full, free, and perfectly frank and friendly interchange of opinions, sentiments, and information, may be regarded as among the important objects of this association. I have spoken freely, and if acceptably, I shall have exceeded my expectations. Perhaps my remarks have been too much extended; but I could not satisfy myself with an effort to meet your views, without going over a good deal of ground. In stating what we have learned by experience, there is, necessarily, so much of minute detail, as to give to the relation an air of tediousness, and yet this is the only way to make it of any use. My object has been, to make what I had to say, perfectly plain and practical, especially on the Culture of the Vine, a business yet in its infancy, in this region, but of most auspicious promise. Without expressing any opinion, in favour of certain kinds, my aim has been both to seek the best, and to make the fruit excellent of its kind.

As to this culture, I will only add, that with proper attention, and care, it may easily be made as profitable, as it is delightful. Let me earnestly recommend, to every one, who has even a Garden, to have at least one, or a few Vines; and to every Farmer, to appropriate some ground to this culture. A little experience, will soon make it successful and pleasing. With me, the crop has been as sure as any of our country, and I know of no one which yields so much clear profit. It need not be disguised surely, that this crop is liable to the usual casualties of the season, that the Vine has its diseases, like every thing else, and its enemies, though these are yet few in number, both as to Vine and fruit, compared with countries where they have been long cultivated. As a general principle, I am abundantly satisfied, that such varieties as stand, uninjured, the severity of our winter frosts, being more hardy, are much less liable to injury, and to disease, both of the vine and fruit, than such as require covering in winter. The principal disease of the fruit, in all parts of United States, is the blight, or mildew. Every body has observed, that the more hardy the vine, the less liable is its fruit, to this very formidable and mysterious disease. Foreigners, from the vine regions of the old world, all agree in saying, that grapes are much more frequently injured by it, in this country, than in any part of Europe. Dufour, of Vevay, the Vineyard of the Swiss Colony on the Ohio, bred to the Vine culture, commenced, there, with the Vines of Switserland, Germany and France, but the mildew compelled him to abandon these and rely on more hardy vines. *The wild native vines of the woods and fields, are, in every country, so far as I know, perfectly free from mildew.* This, I think, should teach us a useful lesson. The present season, so far, is one of the best I ever knew, for the fruit of the vine: when in blossom, the most critical period, the weather was dry and warm. During the blossoming season of last year, the weather was very wet and cool, and the crop was in all respects inferior.

Let me, in drawing to a close, call your attention to one particular feature of the *theory* of your plan of operations, which I fear is greatly in danger of being neglected, in *practise*. If the *Inspecting Committee* fail to examine the several *Gardens* of the members of this society, that feature, much, as it seemed to promise in reference to anticipated good *effects*, will, like all *theory alone*, in most, or all cases, prove to be of *no sort of use*. Theory, gentlemen, is not practise, any more than science is Art, about which so much has been said, or than thought is action. Public institutions, can no more prosper, without care, than can private business. I hope our example, in the first year of associate effort, certainly in a good cause, will not be wanting in proper attention; but that it may have a tendency to commend this association to public favor. Some very obvious improvements, in the plan of transacting business are called for, already; and experience will be constantly suggesting others, so as to increase its effective utility, the main design of the effort.

[For the New-York Farmer.]

ART. CCLIII.—*The Country Farmer.*—No. IV.

MR. FLEET—As I recollect my former Nos., none of which have yet come back to me, one was a kind of Introductory, and two have been devoted to a summary review of the business of the Household of Husbandry, the actual business of the Family of a Country Farmer. To say, that any other than minds of a good share of understanding, can direct all those operations, and successfully, is to deny the distinctions between sense and nonsense, wisdom and folly. The Farm, sir, is a little Commonwealth, a Patriarchate, and the mind that plans and directs all its various operations, is not only a busy, active mind, but absolutely, and necessarily, a mind of no mean powers of thought, understanding, and combination. My business, however, is not to eulogize, but to vindicate, by a just and fair presentation of the facts. The flippancy of youth, and the pedantry of school learning, make multitudes of would-be teachers of Agriculture, who know nothing of the practise;—mere boys, in knowledge and in years, who accuse us of 'dullness,' 'stupidity,' 'plodding on in the old way,' 'content to do as our farthers have done,' till it has become necessary to speak for ourselves. Learning, with common sense, we esteem an excellent thing: without it, a mere soap bubble, a ship all sail, and no ballast. Such, we are aware, are the most of those scribblers for the Journals devoted

to Agriculture and Horticulture, who can see nothing but stupidity, in the Cultivators of the Soil;—they are spoiled children, reading long lessons to grave seniors! It is high time for Farmers to speak of Farming, Gardeners of Gardening, and to speak through the agency of the Press.

Before proceeding to an examination of the subject of Education—the Education proper for the Sons and Daughters of the Families of Farmers,—let me ask of every Reader of your Paper, to turn his own thoughts upon this subject, and let us come to it, after the reflections of a whole week. This, then, should be a short Number, partly because, as I recollect, III was a very long one. In suggesting a few ideas, as food for the thoughts and reflections of the proposed work, writing for the next No. of the 'Farmer,' we may as well take a passing hint from the ruminating animals of the Farm. Though the Cow should eat up the whole hay-stack, yet she would not give us one drop of milk, till, by rumination, the *chewing of her own cud*, its nutrimentitious matter had been *assimilated to herself*, *become hers*, a *part of herself*, and thus elaborated into milk. So it is with us. Ideas are not thought, nor reflection, but only food for the operations of the mind, on which to ruminate.

The chief object of Education, at the present day, seems to us Farmers to be, learning, book learning, head learning, much stuffing of the head, and little attention to the heart: as if, in reality, the business of education was only to cram the memory, and hardly think of the heart, or the understanding.

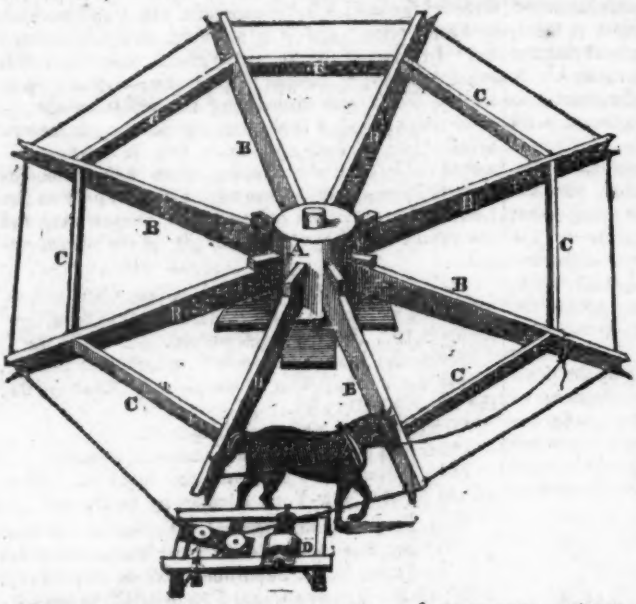
We, on the contrary, seek to enrich the head, by means of the heart, the understanding, by the affections, and with this as a ground-work, learning becomes easy, and is useful. Of this, however, in another place, just remarking, here, that we consider the forming of suitable habits, as a prime essential of education. Popular opinion, as far as we can judge, seems to regard education as a means, and a principal, of advancing the interest of every one, by helping them to '*rise in the world*,' as it is called,—not as Farmers, let it be observed, but as every thing else, except, perhaps, as Mechanics. If such be the case, the way 'to rise in the world,' is by overpassing us, as well as every thing connected with the arts and trades! If I err in stating the case, let my error be corrected, for the object is truth, for the sake of information, and to open the way to my next number.

September 2, 1831.

Errata.—No. III. Paragraph 3, line 1, for will read well—last paragraph, line 2, for Tap Works read Sap Works—line 4, for comings read evenings.

Art. CCLIV.—*Emmons' Horse Power.*

A simple and economical method of propelling machinery by horse power, has long been a desideratum. This is found, we fully believe, in an improvement made by Mr. Calvin Emmons, of this city. Its simplicity of construction and manner of operation may be seen from the following drawing.



A, the centre part or hub; B, the arms with notches cut in their outer ends; C, braces between each of the arms, which keep them at equal distance apart; D, the whirl and drum; the rope E, passing round mid whirl, and giving motion to it and the drum; *f*, a moveable or taughtening pulley, which presses outwardly against the rope by means of a weight; *g*, a guy whirl, to guide the rope in a proper direction. One horse is generally sufficient, but if necessary one can be attached to each arm.

In addition to its simplicity of construction, the materials are easily obtained in every place, and can be put together with very little labor and expense. It requires no building to support it, and may be taken apart with the least inconvenience, and rendered portable. We have seen it in opperation at 117 Hester-Street,—attached to a Threshing-Machine. Our opinion was decidedly favorable, and we accordingly recommend it to the attention of Farmers and Mechanics.

There is a general, and in some sections of our country, a strong prejudice against patented improvements. Although there are many worthless patents palmed on the public, still farmers should discriminate between the good and the bad, and ever be ready to give encouragement to the useful productions of inventive genius. It is not often that those, who devote their time, labor and property to improvements in the arts of life, ever get compensated or reimbursed. Not unfrequently thousands of dollars are expended in perfecting some simple article, that will sell for a few shillings or dollars.

[For the New-York Farmer.]

ART. CCLV.—*Fuel in the Country.* By S. F.

One of the greatest comforts enjoyed in the country, during winter, is a good lively fire made of dry oak or hickory. A pleasant family circle enlivened by an agreeable neighbor, a dear friend, or a favorite cousin, surrounding a brisk fire in the evening, is one of the most lovely sights which human society presents. Although the fire side is so very materially connected with the enjoyments of country life, in the cold and stormy months of winter, still there are thousands of families who deprive themselves of much pleasure and comfort by not having their fuel properly prepared.—In some parts of this State, particularly the western, a wood-house is one of the indispensable out-houses—or rather is an important appendage to the dwelling. The wood after being cut or sawed, and split, is stowed away ready at all times for immediate use. But in other parts of the State, particularly on Loug Island, and also in many sections of New Jersey, the wood is left out-doors, and daily cut up as wanted. The consequences are, that one half of time the fuel is unfit for the purposes of cookery, and for a comfortable fire. In the afternoon a snow storm, for instance, commences.—By much exertion, he whose duty it is to chop the wood, succeeds in cutting and getting into the house sufficient to last until the next day; but it is all covered with snow. In the morning Dick loosing all patience, storms and rages because the fire does not burn—Betty comes and begins to poke it, until it nearly goes out. Presently the mistress appears, commences scolding, and sends Betty after Dick to split up some dry wood. Before the fire burns, the children come down stairs, and shivering gather around the fire-place—Dick in his recklessness treads upon the toes of one, Betty pushes another against a third, who gives his bub a knock, whose cries bring the mother among them, to settle the disturbances. A dozen tongues rattling at the same time, she, unable to get the right of the story, boxes the ears of one, seats another in the corner, a third on the floor, and sends the fourth to look for one of the baby's lost stockings. By half past eight the tea-kettle has boiled, and the griddle is hot. By nine the breakfast is ready—but the tea is smoked, the buckwheat cakes sour, and the gammon sop cold. The husband, irritated at the loss of a good breakfast, frets at Dick for not having finished foddering, and at Betty for not having milked the cows. Thus nearly half the day is taken up in getting the breakfast.

We have known farmers prefer cutting up the wood in this way, in order to prevent the women from burning too much. But this is a most mistaken policy.—The way to save time and fuel, is to have the wood under cover, a good economical cooking stove in the kitchen, and the windows and doors well secured against the entrance of cold air.

ART. CCLVI.—*Miscellaneous, Original and Selected.*

Cobbett's Corn.—In conversing with an English gentleman, lately arrived in this country, he informs us that he had seen Mr. C's field. He is confident that entire success will attend his exertions. It is of a dwarf kind, obtained from France, and matures with moderate heat of climate. Considerable attention, we know, is given to the cultivation of corn in the vicinity of Paris; but they speak of its success as we do of the culture of the foreign vine in this country.

Disease in Horses.—A destructive disease in horses has been prevailing in some parts of the Eastern States. When affected they begin to bend their heads towards the right, and finally continue to turn around until they fall. From dissections made, the disease is supposed to be dropsy of the brain. The remedy recommended, is profuse bleeding on the appearance of the first symptoms.

Improved Live Stock.—I think, Mr. FLEET, you might benefit your friends, and the public in general, were you to say something more on the subject of *stock*, than you do, in your very valuable paper, and leave out some other things of less importance. This is a matter in which most of our Farmers are greatly deficient.

Should you not object, I would like to furnish you occasionally, with what I conceive to be a few useful hints, although most of them may be extracts. B.

REMARKS.—When any of our readers think the 'Farmer' might be improved, we wish them to follow the example of B., by supplying the deficiency. We esteem them our true friends, who advise and help, rather than murmur.

Cucumis colocynthis.—The systematic name for the officinal bitter apple. *Colocynthis*; *Alhandula* of the Arabians. *Coloquintida.* Bitter apple; bitter gourd; bitter cucumber. The fruit, which is the medicinal part of this plant, *Cucumis—foliis multifidis, pomis globosis glabris*, of Linnæus, is imported from Turkey. Its spongy membranous medulla or pith, is directed for use; it has a nauseous, acrid, and intensely bitter taste; and is a powerful irritating cathartic. In doses of ten or twelve grains, it operates with great vehemence, frequently producing violent gripes, bloody stools, and disordering the whole system.—It is recommended in various complaints, as worms, mania, dropsy, epilepsy, &c.; but is seldom resorted to, except where other more mild remedies have been used without success, and then only in the form of the *extractum colocynthidis compositum*, and the *pilulæ ex colocynthide cum aloë* of the pharmacopœas.

New-York Cattle Market, Monday, October 3.—About 1400 head of cattle—prices 4,50 to 6,50, averaging 5,75. Near 400 left unsold.

Sheep and Lambs between 3 and 4000 at market, during the week. The former from $2,25 to $6 00; the latter $1,50 to $3.

Swine—About 500—price, 4½ to 5.

Cows and calves are in demand—25 to $40.

Hay sells at 60 to 75 cents per hundred. [Reported for the New-York Farmer, by D. Drew.]

New-York Produce Market, October 4.—Ashes, per 100 lbs., Pots 5,15, Pearls 5,35; Flax, American, 6 to 8; Flour, N. Y. Superfine, 5,63 to 5,69, Troy, 5 69 to 5 75, Western Canal 5 75 to 6, Richmond City Mills 6,25, Wheat, N. River 1,12 to 1,16, Genesee 1 18 to 1 21; Rye 78 to 80; Corn 70, Long Island 75; Oats 37 to 44; Tallow, American, 11.

Remarks.—The demand for flour is good, but advices from Liverpool of 24th August, quote reduced prices; Wheat sells well—Corn has declined; Provisions have fallen a little.

[For the New-York Farmer.]

ART. CCLVII.—*The Country Farmer.*—No. V. *On the proper Education of the Sons and Daughters of Farmers.*

MR. FLEET—The proper Education for Farmers, male and female, supposing that the sons and daughters are to pursue the same business, will first be discussed. As to the extent of mere literature, or of science, and the knowledge of philosophy, which is desirable for a Farmer, much will depend upon the capacity of each individual, as to resources of mind, physical and moral energy, and pecuniary ability: Always remembering, however, that more learning than understanding, totally disqualifies every son and daughter of the Farm for its business. If men, and boys, and women and girls, would put their learning to good uses, there would be little danger of having too much: nor would there, as the case actually stands, if it were not so much the fashion to throw away so much time in learning what is worse than useless. We are a nation of Englishmen, and the literature of our mother tongue, embraces all, that can, by any possibility, be of any service to a Farmer. Learn as much as they may, of English literature, with science and philosophy, and there is little danger of an overstock, or that the conceit of learning will spoil a boy, or a man, for Farming, unless, indeed, he be spoiled before, by want of mind. Let him go to a 'profession,' and crawl along the road to indolence, uselessness, and contempt, the 'stunted pig' of the order, as a living beacon to other Farmers' sons.

But how much learning should a Farmer have? All he can get, I answer, and *make a good use of*, the *main thing*, after all. While a Boy, a thorough knowledge of the spelling book, the ground work of all literature, so as to be able to spell readily, and correctly, all the words of common occurrence in the language. He must learn to be a good reader also, and may read a book of grammar, for amusement, but should never, if a lad of good sense, be permitted to commit a single rule of it to memory. Leave this to boys who have time to throw away upon the dead languages, and often before they can spell half the words in their own, the way to make pedants, coxcombs, and learned dunces. He must learn arithmetic, and learn how to apply it to use, taking special care to commit the tables to memory, at school. The elements of geography, may be learned in a few months, while practising in penmanship; and some knowledge of history is good, if only to implant a taste for the study, during the leisure hours of a Farmer's life. Natural inclination, is like appetite for food That which is to the taste, and humor of the mind, is easily acquired, sets well, and is likely to be useful. If the boy has some geometry in the mind, study mathematics, geometry, and the elements of astronomy, but let it be his own study, assisted by his Teacher. So, also, if he have a mind for mechanism, indulge him with tools, and with the study of mechanics. So, also, in botany, and the physical sciences as they are called, as mineralogy, geology, and zoology, but only in the rudiments at school. In natural philosophy, encourage all his taste for information. Farming, is, truly a most philosophical business, the delights of which, as well as the success, and profits, are much increased, by an intimate early acquaintance with the laws of matter. The great purpose of learning, is to supply food for thought. So, also, of writing; to set men to thinking for themselves. The horse, who ruminates, grazes all the time. It takes the cow half her time, to chew the cud, without which she would give no milk.

But how much time would you allow the sons of Farmers, in getting all this school learning? I answer, not more than half of each year, from the age of five, to fifteen; that is, in our northern climate, to attend school through each winter, and be kept at work on the Farm all the rest of the time, so as to have a handy habit for work, as well as for learning at school: If kept out of school, half the time, they will return to it with a good appetite for learning; and if kept at school half the time, and the other half at work on the Farm, they will return to their work with a good relish for it, tired of the school house. Whatever is taken with a good appetite, nourishes, whether it be for the body or the mind. These alternate changes, besides that their varied occupations keep the appetite always keen, allow time for reflection, keep the mind occupied, ruminating,—contribute to health, and vigor, bodily and mental, and incorporate habits, leading directly to manhood, and in the very line of life for which your son is destined. The very best feature of a good education, is to incorporate good and useful habits, with the necessary learning. The health of the body, every body knows, is often impaired, by being kept too closely at school. It will startle many persons, to be told, that the mind is often injured in the same way, and yet nothing is more certain. The appetite palls with constant feeding, and a distaste is often produced, a kind of unconquerable aversion, which extends even through life. Few parents seem to be aware of this, especially those who live in large towns, and cities, where it is the fashion to keep children constantly at school, partly in many cases, to keep them '*out of the way!*' They should remember that food, taken to excess, is never well digested. We, on Farms, think of lessons from nature, not despising to learn wisdom from the ruminating cow, the ox, and the sheep. After these animals have done chewing the cud, they are again ready for grazing, and of course with good appetites.

From the age of five to fifteen years, half the time at school, is time enough, for boys of good parts, to get all the learning, at school, that is absolutely necessary to enable a boy to become a good Farmer. Not that he is then a man, or that he is never to get any more learning, after he leaves school. This is not the practice of Farmers' sons, but to consider every part of life as a school for knowledge in the business of life, some part of which is to be acquired by reading of books, but more by observation, and the study of things, in the great book of nature. He has no diploma, on which to repose, like the lad coming from college, who often ceases to learn, as soon as he comes from school. Farmers, in fact, think more, and study more, in their way, than the most of men are aware of. A vacant mind, is rarely met with in a Farm-house.

I do not say, then, that at the age of fifteen, every Farmer's son is to be taken from School. Two or three months each winter, for two or three years longer time, may be well spared to such as have an aptitude for more knowledge of books, especially if

in the seasons of vegetation, they have acquitted themselves well in the labors of the Farm, not only as to work, but by bringing the mind into those labors. Nor do I say that no Farmer's son should be sent to school before five years of age: nor that, at that age, he is to be tasked with constant work, when out of school. Let him play, and make play of work, by which he will be learning something, about work, no small part of his education. Before five years old, he will have learned his letters, and how to form simple words, by putting these letters together, thus to spell many words. By the aid of little picture books, with cuts of the common animals of the farm, the form, figure, and name of each one will be familiar to him, and he will be able to spell the names, even without ever having thought of such a thing as a task, or lesson, in learning. It has been his play, like the little dams he has made in the brook, in which he has actually, been studying natural philosophy, by experiment. I have raised up a large Family, each of which, has,—except one—alas!—been conducted along exactly in the way here proposed, and with the most perfect success, thanks to divine mercy. Good habits, Mr. Editor, engrafted upon, or incorporated with, the necessary learning, and habits adapted to the destined business of life, should be considered as a chief object of Education, of which I have had the most convincing, and, by negation—the most melancholy evidence.

Sept. 3, 1831.

[For the New-York Farmer.]

ART. CCLVIII.—*Crops of the Season in a Part of the Eastern Section of New-York.*

MR. EDITOR—The crops of this region, on the whole, though not free from exceptions, are quite equal to the average of even our most favorable seasons. Winter wheat, and rye, a heavy crop, in general, but injured, in some parts of the country, by unfavorable weather in harvest time, and in some instances, by worms, grasshoppers, &c. The crop of maize, very fine, and the grain will be unusually heavy. Of oats, barley, and summer wheat, and rye, rather more than a middling crop. Hay, I should think, generally, afforded a crop of more value than usual, and secured in fine order, though with some exceptions. The pasturage of the season has been better than usual, particularly on the dryest land; and the stock, of most Farms, is in excellent order; and their grass fed beef, and mutton, will be better than usual. Of turnips, potatoes, pumpkins, and other such things, there is a prospect of an abundant crop, and buckwheat has done well. This statement embraces, so far as my information goes, the counties of Saratoga, Albany, Green, Columbia, Duchess, Rensselaer, Washington, Schnectady and Schoharie. In all these, our supply of Fruit has been much less than usual, this year. Apples, but very few, and in few places. Cider will be scarce and dear. The crop of Plums, which was very abundant last year, has failed almost entirely. The curculio, early in the season, appeared in greater numbers than I ever saw it before, and it has been, emphatically, a year uncommonly productive of destructive enemies of vegetation of all sorts. Pears are scarce, but there are more of these than of either of the kinds named above. The crop of Grapes, has been heavy, and the fruit little injured by mildew. The vine culture, has been very numerous, and very active; and the cricket has learned to cut off the bark of the stems of some of the grape clusters. We must catch them, another year, and try Mr. Thorburn's Cockcroach traps, or something else. So much, in compliance, with your call, in the Farmer of 22d instant, from

Sept. 1831. A COLUMBIA FARMER.

[For the New-York Farmer.]

ART. CCLIX.—*Circular from the Agricultural and Horticultural Society of India, to the Secretary of the Horticultural Society of New-York.*

SIR,—The Agricultural and Horticultural Society of India have directed me to request your kind attention to the present Circular.

The Society are convinced that the freest possible exchange of the national productions of every country will be found, in the end, most conducive to the prosperity of all; and guided by these principles, they desire to offer, both to Societies and individuals in every quarter of the globe, any of the Agricultural and Horticultural products of India, or any information relative thereto, which may be desired, in exchange for such as may be forwarded, or communicated to them. It will be most gratifying to the Society if you can point out to them any desiderata which can be supplied from India, or if you can, by any means, forward to them seeds, plants, useful communications or suggestions. The Society will feel much obliged by your giving every publicity in your power to this communication. I am, Sir, your obedient, humble servant,

HENRY GIDDINGTON,

Foreign Secretary of Agricultural and Horticultural Society of India.

Calcutta, March 1st, 1831.

ART. CCLX.—*Practical Observations on the Principles of Breeding.*

No degree of skill or attention, will convert a mean animal into a good one. The qualities of the individual, though they may not be as distinctive, are nearly as obstinate as those which separate one species from another. And a man might as well expect by culture to make the obdurate hog yield the exquisite fleece of the Saxon sheep, as to convert the patient and cold blooded drudge, into the spirited and beautiful courser. We must begin right, or we are obliged to end wrong. We must breed with an intelligent eye to the results after which we aim, or all our subsequent labors will fail of their adequate reward.

To that point therefore, the breeding of domestic animals—I desire to direct the attention of your readers, as to a thing lying at the foundation of their prosperity. What I have to say, is the result of several years attention to the subject, and though much of it may appear different, from what is commonly received as true, I do not feel at liberty to disregard, facts occuring under my own notice, out of deference to any popular opinion. If more numerous and better

conducted experiments shall establish results different from those I have arrived at,—I am sure no one will receive and act on them with more alacrity than myself.

Between the parent and the offspring, in every species of domesticated animals, there are very great, and frequently so far as we can discover most capricious diversities. This is the very fact which gives to this subject its importance as well as its difficulty. For if domestication had not infringed on nature in this particular, we could not have felt more uncertainty about the produce of our flocks and hersd, than about the appearance of the young in a park of deer. We have cultivated away, in part at least, one great law of animal nature; and what we seek is amid the great irregularities which have succeeded to the simple uniformity of nature, to fasten on, and as far as practicable to perpetuate such of them as we find most conducive to our interest.

As a general rule it is certainly true that the produce of any animal is more likely to pursue the qualities which distinguish the family to which it belongs, than those which are more particularly personal to its immediate ancestor. You will be more apt to get good stock from an animal of pure blood, whose family are good, even if he be inferior in qualities, than from the finest possible animal, if he be a chance animal from a low bred and inferior stock. The latter may produce a few young like himself, and they being carefully selected and bred from, may in time produce a good race,—but the most of his stock will resemble his ancestors. I know of no exception to this, where the animal thus superior to his race, is of cold blood. But there are some singular cases of fine animals of a fine race also, that have propagated stock inferior to themselves, and inferior also to their own race. Potomac, one of the best sons of Diomed, and one of the longest lived, never perhaps begot a single horse as good as himself, nor one as good as the average stock of his sire. It will not do therefore to trust to a sire, if he be never so fine, if his family are base. It will not do moreover to rely on the best son of the best sire, till he has proved himself by his offspring.

It is very remarkable, but it is nevertheless a fact, that in some races an animal of pure blood will be more apt to produce young like itself in appearance, where the opposite parent is a scrub, than if it also were high bred. It may be that the pure blood of the one parent finds nothing in the mixed puddle of the others to countervail its effects on the young. Or it may depend on some other cause not easily traced. But of the fact, there is no doubt. The next cross, however, will show the cloven foot; and he who relies on such doubtful indications will find at last that he has bestowed his labor in vain. It cannot be too steadily kept in remembrance, that although high breeding is much,—and good appearance is much,—and fine qualities are much, yet to arrive at a reasonable certainty, we must have besides all these, *trial by offspring*, and that where both parents are similar in kind. When all these meet you have all you need desire, and may proceed to select the finest produce and go on with their improvement; instead of seeking out new crosses and uncertain mixed breeds, which in two or three generations may reward you with a total failure.

In relation to crosses, I have found after repeated trials and much observation, on many species, that it is not possible to keep up a mixed breed of any kind, without resorting continually to the original families which produced the mixed race you desire to continue. Two half breeds will not produce in the next generation a race like themselves, no matter how nearly the parents may resemble each other. One animal will resemble the remote ancestors on one side, another those on the other. And instead of having, as you may have hoped, a new race of your own, you will have several races, only remotely resembling each other, with this common propensity, that they are all getting worse each generation. Those mixed races in whatever kind of stock, may be easily and certainly continued by resorting constantly to one pure blooded and one scrub parent, or to two blooded parents of different races, according to the character of stock you wish to breed.

As to the degrees of blood required in one or both parents, that of course must be determined by the use for which the produce is designed. Breeders generally consider seven-eights nearly equal to full blood; and at fifteen-sixteenths animals are usually accounted full blooded. I very much doubt whether this mode of computation is strict enough. And it seems not improbable, that many of the failures attendant on what we consider thorough breeding may have resulted from the errors into which it has led breeders. The tendency in all such stocks is backward; and they can be advanced only with care and difficulty. The consequence is, that it requires a great deal of good blood to work out a very little that is bad. We fall into a great mistake when we imagine, that as at a certain point on one hand the srcub blood will predominate, so at an equal point on the other will the pure blood prevail. It is far otherwise. In the park of a friend in Mercer county, Kentucky, I saw half, quarter, one eighth breed buffalo, on the cow;—part being on the short horn Durham. The quarter breed looked nearly as much like the buffaloe as the cow; it was a female and a most beautiful animal. In the eighth breed the buffaloe was still somewhat discernible. But in these cases it was the first and strong outpourings of nature, from a stock that had been bred unmixed in our forests for a thousand generations. Yet even here the pure blood (which I call the buffaloe) was no longer distinct after the third, or perhaps even after the second generation. I specify this case the more particularly, because many persons suppose those two races will not breed on each other, and that has been asserted by some naturalists. I believe the common bull refuses to go to the buffaloe cow, on account of the peculiar stench of the latter; and on the other hand, there are very few cows of the common race that can give birth to a calf begotten by a buffaloe bull, on account of the excessive development of the shoulders and fore parts of those animals. Those difficulties are however sometimes overcome. On the other hand I have seen quarter bred sheep, hogs and horses, not to mention scores of individuals of inferior species, that had nothing to distinguish them from the most common animals. The most indifferent horse I ever owned, and the vilest looking, was a grandson of the imported horse Eagle, through two scrub mares. The Winter Arabian produced a stock in this state of very peculiar appearance,—all of the same general colour,—generally destitute of the peculiar horny substance which exists on the leg of the

horse, on the inside, above the fore and below the hind knees,—and all so much alike, that in four or five years, he begot no colt that could not easily be told by the eye, as of his stock. I had five of his grand colts foaled last spring, and have seen perhaps thirty others,—some thorough bred—some otherwise. The singular resemblance to each other no longer continues in the second generation; the horny substance recurs on the legs,—they are of various colours, and in their general appearance there is nothing to distinguish them greatly from other horses. One of the colts of the second generation, bred by myself, whose dam and sire were both by the Winter Arabian, making the colt possess as much of the blood of that horse, as either of its immediate parents did—was totally unlike the half breed stock. They were all grey and otherwise peculiar, the colt was sorrel and peculiar in no respect. The colt's mother was out of a mare by Sterling, his father out of one by Spread Eagle—who were brothers; both those mares are sorrels, and the colt somewhat resembled one of them—his grand dam by the sire. But what is singular is this, the dam of the colt had produced one by Hephestion,—who was sorrel,—which yet was grey, and has been taken by most who saw it for a half bred Arabian; and is greatly more like that stock than his brother, who is more nearly related to it,—but bred from two mixed animals. Animals possessing less than half blood, I should generally consider as having no particular value on account of blood; in other words, animals are not likely to exhibit much of the peculiarity of a particular stock, if they are less than half bred on that stock. I have no idea that you can mix up the blood of six or seven kinds of sheep—cattle, horses, or any other creatures, and thence produce animals having in ratable proportion the qualities of all their ancestors. It might be possible in that way, to produce a new race, after much time and care, that would equal, perhaps excel any of the old; but the new race would not be in consequence, but rather coerced by the strong hand of cultivation in defiance of the original crosses.

(To be Continued.)

Art. CCLXI.—*American Silk.*

The object of the following remarks is principally to explain what is meant by *Floss Silk*, how made, its use, &c. We hope it will prove interesting to more than one description of our readers.

When Mr. D'Homergue arrived in this country, upwards of two years ago, it was said that he had been sent for by a society in Philadelphia, to reel silk from the cocoons, and make floss and sewing silk. If this be true, it shows how little was known at that time of the different arts, which together co-operate in the manufacture of silk. To reel silk from the cocoons, is the business of a female reeler, and if the thing is to be undertaken on a large scale, of a director of a filature. To make floss and sewing silk, is the employment of a silk throwster.—For the former business, nothing is wanting but a few reels, with their furnaces and basins, and the work is done in the summer only, under a shed, open to the free circulation of air; the latter, on the contrary, requires an expensive and complicated set of machinery, and the labor is performed throughout the year in a large room, of sufficient space to contain the apparatus. Directors of filatures and silk throwsters are men of different professions, and nothing is more rare than to find a person competent to both. The society we allude to, do not seem to have been aware of all this. They probably believed that a single person, and that person a mere operative, might do all these things, with the aid of some simple machinery. Indeed, from a publication of theirs, which appeared in the newspapers at that time, it appears that they sent for such a person from Europe, on failing to obtain a female silk spinner from Connecticut.

Since that period, a great deal of light has been thrown upon the subject. The publications which have appeared in this country, have made their way to Europe, and in consequence of it, silk manufacturers of all descriptions have come to our shores. A corresponding impulse has been felt in this country, and of all this we are beginning to feel the happy effects. Silk throwsters (whose denomination two years ago was hardly known) are now established in several of our cities; foreign raw silk has been imported in larger quantities than before; for the first time, this year, it has been purchased at our public sales, and it is now undergoing the regular process of throwing, in order to be converted into some kind of manufacture. The first that the public voice seems to call for, are floss and sewing silk; the former because much of it is employed by fringe and coach lace makers, of whom numbers have been for a long time established in our large towns, working silk, imported from foreign countries; and the latter, because it is an indispensable article in all families for domestic use. We shall, therefore, make a few remarks on the manufacture of these two articles.

1. *Floss Silk.*—Mr. D'Homergue, in his essays, calls by that name the kind of silk which the French call *floselle*, and which is made out of the floss, or outside tow and coarse fibres of the cocoons. But he said nothing of what is called floss silk in this country, either because he did not think it of sufficient importance, or because it is not so immediately connected with the subject of reeling. Whatever his motives may have been, we shall try to supply this deficiency:

Floss Silk, in the sense that we speak of, is what the French call *Soie platte* (flat silk,) so named from its being flat and not round like other silk. It is used in almost every kind of coach-lace and fringe makers' work, in embroidery, and in the manufacture of stockings, gloves, and in general of hosiery. It is reeled like other silk, generally of from 15 to 20, or from 20 to 25 cocoons; after reeling, it is sent to the *throwster*, who gives it that preparation which constitutes *floss silk*. He doubles the thread according to the size wanted, and twists them in his mill, not like other silk, several times, backwards and forwards, from left to right and afterwards from right to left, but twists it only on one side, and very lightly, so that when it is afterwards boiled by the dyer in order to dissolve the gum with which it is impregnated, it becomes partly untwisted, so as to give it a flat appearance, without, however, making it crispy and unfit for winding, which would be the case, if it had not been twisted in the throwing mill. After boiling it is dyed, and in that state is fit for use.

We have been told of floss silk having been made by some ingenious ladies in the south; which undyed

and unwound had been deemed by coach-lace makers in this city, superior to imported silk of the same kind, and even purchased in that state at 13 dollars a pound, while foreign floss silk, dyed and wound on bobbins, sold only for ten.

We are not disposed to controvert this fact; and shall only say that we have heard but of one or two pounds thus purchased two or three years ago, and we have been told that the ladies, who made that small quantity, soon gave up the undertaking; no doubt in consequeuce of the enormous length of time that it took them to produce that result, and the waste of the material that it occasioned. We have heard no more since of similar attempts.

2. *Sewing Silk.*—We have little to add on the subject of this article, to what has been said by Mr. D'Homergue in his essays, and since in various other publications. It is well understood that sewing silk is made from raw silk reeled from 20 to 25 and even to 40 or 50 cocoons, according to the size wanted, and if we believe Mr. Boucher, it is more difficult to reel silk out of many than out of a few cocoons—after reeling, it is made into sewing silk by the throwster, and requires a great deal more twisting backwards and forwards, and a stronger kind of twist than any other silk.

We are told that there is no throwsting mill yet set up in this country, of sufficient power to twist sewing silk. Neither that of Mr. Edward Brown, at Dedham, Massachusetts, which has twenty spindles, nor that of Mr. Ripka, at Manayunk, near Philadelphia, which has sixty, are sufficient for that purpose. But we are also informed that this will soon be remedied, and that a proper set of throwsting machinery is even now in preparation at Philadelphia. There is no doubt that all these things will henceforth be certainly progressing in our country; the art of reeling is all we want to set all the rest in motion. For this we look to Congress, on whom alone depends the promoting or the checking of this astonishing progress. *Baltimore Cron.*

ART. CCLXII.—*Produce brought to Cincinnati on the Miami Canal.*

The following is a statement of the principal articles of produce brought to the Cincinati market on the Miami canal duriug the year ending on the 31st Sept.

Flour	119,784 bbls.	Beef	609 bbls.
Whiskey	30,201 do.	Tallow	71 do.
Pork	16,028 do.	Linseed Oil	520 do.
Bacon	2,243,026 lbs.	Ashes	43 do.
do.	1,168 hds.	Beeswax	5,621 lbs.
Lard	25,471 kegs	Wool	29,074 do.
do.	334 bls.	Feathers	20,330 do.
Butter	101,370 lbs.	Wood,cords	9,257

This is but a comparatively small portion of the produce brought to this market; the number of wagons daily arriving and departing, having rather increased than decreased since the opening of the canal, and the receipts of produce by river boats being constantly increasing; and when the price which the staple articles have borne for some years past is considered in connexion with the immense quantities sold by the farmers of the Miami country, it will naturally be inferred that the country is becoming wealthy with a rapidity sufficient to satisfy the wishes of all reasonable people. The advantages of the country are greatly increased by the growth of the city; the competition among purchasers of produce and sellers of goods, where they are numerous and possessed of capital, being such as to insure to the cultivator the highest price that can be afforded for his articles, and the foreign goods that he is obliged to buy, at the lowest rates. The extent of the attraction which our city affords as a mart for the sale of country produce, is constantly widening, and we are glad to find that it is now so great as to bring considerable quantities of Western Reserve cheese here for sale. The superiority of this article, is not yet generally known among us—(there is no better cheese made in the would than that from some of the dairies in the Western Reserve)—and of course it is not so much sought for as it will be when its character is better understood. We have not yet learned *fully* to appreciate the difference between very good, and indifferent articles, of many kinds, but we are acquiring this knowledge, and becoming more and more willing to give prices proportionate to the *value*, and which are not regulated merely by the name of the article.—*West. Tiller.*

ART. CCLXIII.—*Proportion of Nutriment in different kinds of Food.*

A very interesting report on the comparative nutritive properties of food, was presented, a few years since, to the French minister of the interior, by M. M. Percy and Vauquelin, two celebrated chemists, and members of the French Institute. The high professional reputation of these gentlemen is such as to prevent any doubt existing as to the accuracy of their experiments, the results of which are as follows:—

Of *Bread* every 100lbs weight were found to contain 80lbs. of nutritious matter. *Butcher's Meat*, averaging the various sorts, contains only 35lbs. in 100. *French Beans* (not the green pods, but the seeds) 92lbs. in 100. *Broad Kidney Beans* 89lbs; *Peas* 93lbs; *Lentils* (a kind of half pea, but little known in this country) 94lbs. in 100. *Greens* and *Turnips* which are the most aqueous of all the vegetables used for domestic purposes, furnish only from 6 to 8lbs. of solid nutritive matter in 100. *Carrots* 14lbs. and *Potatoes* only yielded 25lbs. of a substance valuable as nutrition, in the 100. One pound of good bread, therefore, is equal to upwards of three pounds of the best potatoes; and 75lbs. of bread, with 40lbs. of meat, are equal to 300lbs. of potatoes;—or, to go more into details, three quarters of a pound of bread with 9 ounces of meat, are equal to 3lbs. potatoes,—1lb. of potatoes is equal to 4lbs. of cabbage and three of turnips.—But 1lb. of rice, broad beans, French beans, is equal to 3lbs. of potatoes.

In the foregoing statement, two things will be apt to surprise the reader.—First, the greater amount of nutriment contained in bread and the farinaceous seeds generally, than in all the other articles of our ordinary food: and second, that though the potatoe ranks, in regard to the proportion of nutritious matter it affords, far below the foregoing, yet when compared with butchers meat, there is found to be but 10 per cent. in favour of the latter. The experience of large bodies of men—of even extensive districts of country, is in evidence of the general truth of these conclusions.

A large proportion of the most healthy and robust of the English peasantry live mainly upon farinaceous substances—the same is true, to a still greater extent, of the inhabitants of the south of Europe, and of different parts of the Asiatic continent. The potato forms, we know, the chief food of the Irish peasantry, than whom, when their constitutions have not been destroyed by causes connected with their political and moral condition, no set of men exhibit a greater amount of health, nor more athletic forms. The inhabitants of many parts of Germany enjoy perfect health, upon a diet principally of different preparations of rye and barley, while the hardy, shrewd, and enterprising Scot lives on potatoes, and oat meal variously cooked

Dr. Stark informs us, that upon a diet of 4 lbs. of milk and 30 ounces of bread, his health and strength were fully sustained, while his body increased rapidly in bulk. It was remarked by Brindly, the celebrated canal engineer, that, in various works in which he had been engaged, where the workmen being paid by the piece, each exerted himself to earn as much as possible, men, from the north of Lancashire and Yorkshire, who adheared to their customary diet of oat cake and hasty pudding, with water for their drink, sustained more labor, and made greater wages than others, who lived on bread, cheese, bacon and beer, the general diet of the laborers of the South.

Flesh presents a greater amount of nutriment in a given *bulk*, than vegetable aliment; it is also more readily digested, but it stimulates or heats the system more than the latter. It is on many accounts, especially in cold climates and during the winter season, a very useful and appropriate, though by no means, as we perceive, an essential part of the diet of the active laborer.---*Journal of Health.*

Art. CCLXIV.—*Mutation of Matter.*

Every thing generated by nature, or made by art, is generated or made out of something else; and this something else is called its substance, or *matter*. But there can be no change of one thing into another, where the two changing beings do not participate the same matter. Hence were there not a congeniality between the food and the plant, and the food and the animal, these two organized bodies could not be nourished; but the material imbibed, would operate as a medicine, instead of being assimilated as an aliment.

Whoever attends closely to the operations of nature will be convinced, that every recent production, whether vegetable or animal, that daily occurs, is not absolutely a fresh creation, an evocation, or calling of something out of *nothing;* for that is impossible. "*Ex nihilo nihil fit.*" What then is it? 'Tis a change, or mutation of something which *before existed.* Every thing around us is in motion. No terrestial thing is stationary. On every earthly thing mutability is written; and substances of every kind, either *immediately*, or *intermediately* pass into one another; and reciprocal deaths, dissolutions and digestions support, by turns, all substances out of each other.

When an organized body dies, the organic particles survive; for death has no power over them; but they circulate through the universe; pass into other beings, producing life and nourishment. A growing vegetable receives these invisible seeds, or organic particles from the earth, from water, and from the air; and their reception perfects the plant. A quadruped receives the plant into its stomach for food; when its digestive powers destroy its vegetative life, should any be remaining; and then the digesting apparatus animalizes the vegetable, and gradually converts it into the nature, and substance of the creature. And when this animal dies, his constituent particles fly off in vapor: these are absorbed by the growing plant with avidity, they being its appropriate food; and this absorption of putrid vapor causes them to grow, and to flourish; and thus do animals and vegetables mutually nourish and support each other; so that what was yesterday grass, is to-day part of a sheep, and to-morrow becomes part of a man.

From the foregoing doctrine may be deduced the true theory of the action of *manures;* or the sustentation of a plant by its appropriate food. This is the corner-stone in the foundation of that Temple of Ceres, which we hope to see reared in America. It will moreover illustrate that doctrine which teaches, that in this world which we inhabit, there is an universal change, or mutation of all things into all; that nothing is lost, but the sum total of matter in the Universe remains perfectly the same; and that what some consider as fresh creations, or calling of something out of nothing, is only a change or mutation of something which before existed.

The Roman poet *Lucretius* sums up the doctrine of unceasing mutation thus,

> "And so each part returns when bodies die,
> What came from earth to earth; what from the sky
> Dropt down, ascends again, and mounts on high,
> For Death doth not destroy; but disunite
> The seeds, and change their order, and their site:
> Then makes new combinations, whence arise
> In bodies all those great varieties
> Of shape and color."

To scrutinize how an organized body *first* began, is perhaps, a presumptuous attempt; but to inquire after what manner, when once begun, they have been continued, is a work more suited to human abilities, and is gratifying to the towering faculties of reason, and honorable to religion: provided we substitute for the disconsolate doctrine of blind and vague chance, conspicuous in Lucretius, that of an intelligent, and sovereign Creator and Legislator of the Universe, the Almighty Director, and merciful Controller of that never ceasing change, or circulation, through which every thing on this evanescent globe is doomed to pass.

[*Botanist.*

Mr. Fleet,—The following is a copy of a communication from T. Towner, Esq., to the Pennsylvania Agricultural Society. B.

Art. CCLXV.—*On the Superiority of Improved Short-Horns for the Dairy and Shambles, and their Vigor and Fitness for Labor.*

Sir—I live in a section of the country where the dairy forms a very conspicuous part of the income of the Farmer, and where very considerable attention is paid to the raising of Cattle, of the finest description, and possessing the most valuable and useful qualities.

I have had considerable acquaintance with the Im-

proved Durham Short Horn Stock—have visited the farm of *Mr. Powell*, and viewed the stock in his possession, and by him imported; and do not hesitate to express my opinion decidely in favor of that breed of cattle, as possessing more valuable and intrinsic qualities than any other which have ever come under my observation.

For the more common and useful purposes of fattening and the dairy, they far surpass any description of their species, combining great symmetry of form, with superior size, rapid growth, and an unusual aptness to fatten.

Such is my intire conviction of their great superiority and excellence, that I have procured a Bull from *Mr. Powell's* stock, with whose progress and improvment I am extremely well satisfied.

Very Respectfully,
I remain yours, &c.

Goshon, Ct. Jan. 22, 1827. T. Towner.

Art. CCLXVI.—*Miscellaneous, Original and Selected.*

Mildew.---Mr. Fleet, One of my neighbours has been experimenting, and the result merits a place in your paper. Some of his Grape Vines, I think the Sweetwater, had their Fruit attacked with mildew, but partially, on some berries, or clusters, when hardly half grown. The experiment, was, to remove the earth around the roots, cover the ground with unleached Ashes, and then restore the removed soil, thus burying the ashes. He then picked off the diseased fruit, and all the rest grew and ripened well, and no more mildew appeared. He says he took the hint from a Frenchman, in New York, probably Mr. Loubat; and this candor is so creditable, and so *unusual*, that I beg you will record it of my neighbour, Mr. Learned a modest man, and a good Gardener.

L. H.

Crops of North Carolina.---Mr. Fleet, from the appearances of this Season, this section of the States is doubtless most admirably adapted to the raising of Apples, Peaches, Grapes, Silk, and almost all kinds of the produce of the North, as well as South; I never have seen a better Crop of Apples, yet no Cider is made here.---Yours, J. S.---*Bundleton N. C. Sept.* 14 1831.

Officers of the Massachusetts Horticultural Society.—At a meeting held on the 1st of October, the following officers were elected.

President—Henry A. S. Dearborn, *Roxbury.* Vice Presidents—Zebedee Cook, Jr. *Dorchester;* John C. Gray, *Boston;* Enoch Bartlett, *Roxbury;* Elias Phinney, *Lexington.* Treasurer—Cheever Newhall, *Boston.* Corresponding Secretary—Jacob Bigelow, M. D. *Boston.* Recording Secretary—Robert L. Emmons, *Boston.*

Professor of Botany and Vegetable Physiology—Malthus A. Ward, M. D. Professor of Entomology—T. W. Harris, M. D. Professor of Horticultural Chemistry—J. W. Webster, M. D.

Green Corn Stalks.—Mr. Fessenden, For the last twenty-five years I have pursued a practice, common in this vicinity, of feeding milch cows with green stalks as soon as the corn was well filled, and the utility of the practice I never doubted until the present season. I began feeding this season as usual, but soon found that the quantity of milk was diminished. As the milk of each night was all sold, the exact quantity was known.

I did not then suppose it possible that the stalks could occasion the diminution, but was persuaded by my family to desist from giving them stalks, in about 8 or 9 days after I commenced, and they subsisted on grazing in the same pasture in which they were kept while fed as above—and to my surprise the quantity of milk increased. As I paid no attention to the subject until about the time of discontinuing the feeding with stalks, I cannot state the precise amount of difference in the quantity of milk, but as near as I can ascertain it was from 1-6th to 1-8th part of the whole.

My corn was planted in hills and the stalks of about four hills per day were served to each cow during the above time. Your obedient servant, E. F. Woodward. *Newton, September* 19, 1831.

[*N. E. Farmer.*

Sweet Potato Squashes.—We were kindly presented by Mr. J. Winship, of Brighton, with several very elegant squashes, which have received the above appellation. We found them very fine, particularly for pies. A few of the seeds for gratuitous distribution may be had at the *New England Farmer Office.*

Large Vergaloo Pear.—Albany, against the field.—We received yesterday a Vergaloo pear from the garden of Isaac Denniston, Esq. of this city, which measured lengthwise *eleven and a half inches*, and the circumference of which was *nine and a half inches.* We are requested to add, that this beats even Dutchess. This fine specimen of a delicious fruit may be seen at the store of R. M. Meigs.—*Albany Argus.*

Large Ox Team.—At a recent Cattle show, says the Essex Register, a team of *one hundred and fifty* pairs of working oxen, principally from the North Parish in Andover, paraded the streets, and marched and counter marched, with as much precision, to say the least, as many other troops we have seen, and were viewed with as much interest. Great credit is due to the enterprising farmers of this flourishing town for their public spirit in bringing forward this interesting exhibition. It far exceeded any thing of the kind, we have before witnessed, in this or any other Country.

Spanish Swine.—They are seen in droves all over Spain. They subsist in summer on weeds, and with a little corn in autumn become astonishingly fat, and make the most delicious pork in the world. I will send you a pair, and shall be happy on all occasions to serve your views.

On leaving Malaga in Jan. 1831, among other articles for *ship stores*, I procured a pair of this breed with a view to introduce them into this state. But on approaching the American coast in February, in a heavy gale of wind, the pigs with many other things were swept from our deck and lost. Since my return I have written to Malaga, and by the kind aid of a friend there, have procured another pair of the same breed.

They have safely arrived, and in good order.-From these (prejudice laid aside) I confidently believe our native breeds of swine here may be greatly improved. It is hoped that agricultural gentlemen

in the vicinity will feel disposed to afford such encouragement as shall give a fair trial, and I trust they will be fully satisfied with the result.

Windsor, Sept. 8, 1831. SAMUEL WOODRUFF.

Substitute for Hemp.---Mr. D. C. Tiere, states in the Buffalo Bulletin that he has discovered a substitute for hemp and flax in a vegetable which grows at Syracuse. It was cut down by a farmer mowing and fell into the water. He obtained about 2 ozs. of it near a yard long, in the imperfect state, and found it equal to flax for strength and softness. He intends to make a satisfactory experiment and communicate the result.

Grapes in Baltimore.---We have been delighted with the supply of delicious fruit which our market has afforded this season. In addition to our usual supply of fine peaches, which are unequaled in any other market, we have for some weeks past been furnished with delicious grapes from the vineyard of Nicholas Brewer, Esq. of Annapolis: They were of the following kinds :---Golden Chasselas, Sweetwater, Isabella, Bland's Madeira and Red Hamburg, the two first sold readily at $6 per bushel, and the Madeira are selling with equal facility at $3 to $4. Of the three last mentioned kinds, Mr. Brewer has about 200 bushels on his vines. *Amer. Farmer.*

Grape Butter---In place of adding fruits of various kinds to the boiling must, some only add a certain portion of must that has been evaporated and concentrated to thickness, the whole boiled to the consistence of jelly, is a very agreeable and healthy addition to the table in fall and winter. This preserve is poured into pots, with cinnamon and cloves, and put in the bread oven to bake, before it is considered sufficiently prepared for keeping. Before serving it on the table it is slightly warmed and is eaten with buttered toast. *Vine Dresser's Manual.*

New York Produce Market, October 12, 1831.

Ashes—Per 100 lbs. Pots, first sort, 1831, 5 5 *a* 5 10, Pearl, 5 25 *a* 5 30

Barilla—duty free, Teneriffe, ton 38 *a* 45

Beeswax—duty, 15 per cent ad. val. White, lb. 44 *a* 45, Yellow 18 *a* 21

Bread—Navy, lb *a* 3½, Pilot, *a* 4½, Crackers, 5½ *a* 5¾

Coal—duty, 6 cents per bushel, Liverpool chal. 12 *a* Scotch *a* Sidney & Bridgeport 10 50 *a* Albion, 9 50 *a* Verginia, 5 *a* 7 Anthracite, ton 6 *a* 7

Cordage—duty, tarred, 4 cents, untarred, 5 cents per lb. Foreign, lb *a* American, cwt. *a*

Cotton—duty, 3 cents per lb. New-Orleans, lb 10 *a* 12, Upland 7½ *a* 10, Alabama 8 *a* 11, Tennessee 8 *a* 9½

Cotton Bagging—duty, 5 cents per square yard, Hemp yd 13 *a* 17, Flax 12 *a* 16, do American 19 *a* 21

Feathers—duty, 15 per cent ad. val. Live Foreign lb 14 *a* 20, American 35 *a* 37½

Flax—duty, $50 per ton, Russia, lb 10 *a* 11 American 6 *a* 8

Flour & Meal—N. Y. superfine, bbl. 5 62½ *a* 5 69, Troy 5 69 *a* 5 75, Western Canal 5 75 *a* 6, Ohio *a* 5 62½, Philadelphia *a* Baltimore Howard-st. *a* 6 25, Richmond city mills *a* 6 25, do country 5 75 *a* 5 87½, Alexandria & Georgetown 5 75 *a* 5 87½, Fredricksburg 5 69 *a* 575, Petersburg *a* 5 75, Scratched and fine 5 37½ *a* 5 50, Middlings, fine 5 *a* 5 25, Rye Flour *a* 4 25, Indian Meal 3 75 *a* 3 87½, do do hhd. 17 50 *a*——

Grain—Wheat, N. River, bushel 1 12 *a* 1 16, do Genesee 1 18 *a* 1 21, do Virginia 1 12½ *a* 1 15, do N. Carolina 1 6 *a* 1 12½, Rye, Northern *a* 80, Corn, Yellow North 68 *a* 70, White, L. Island and Jersey 73 *a* 74, Southern 56 *a* 62, Barley, N.R. 1 *a* 1 12½ Oats, South and North 37 *a* 43, Peas, white dry, 7 bushel 7 *a* 8, do black eyed bushel *a* Beans, per tce. 7 bushel 9 *a* 10

Hemp—duty, On Russia, $60 per ton, Manilla, 15 per cent ad. val., Yarns, 5 cents per lb. Russia ton *a* 275, Manilla 240 *a* 245 Sisal *a* American, dew-rot 160 *a* 200, Yarns, Kentucky lb *a*

Honey—duty, 15 per cent ad. val., Havana gal. 50 *a* 51

Hops—first sort 1831, lbs *a* Second Sort *a*

Horns—duty, 15 per cent ad. val., Horns Ox per. 100 5 *a* 20

Lumber—Yard selling prices, Boards N.River, M. ft. *a* 15, do Eastern Pine, 16 *a* 17, do Albany do pce. 16 *a* 17, Plank, Geo. do M.ft. 25 *a* 35 Staves, W. O. Pipe M. 56 *a* 59 do hhd 34 *a* 40, do bbl 29 *a* 31 do R. O. hhd *a* 27 Heading, W. O. 54 *a* 55, Hoops 25 *a* 28 Scantling, Pine 15 *a* 16 do Oak 20 *a* 25 Timber, Oak sq.ft. 20 *a* 25, do Gen. Yellow Pine 25 *a* 30, Shingles, Cypress M. 3 50 *a* 3 75, do Pine bdl 2 50 *a* 3

Provisions—Beef, Mess bbl 7 75 *a* 8 50, do Prime 4 75 *a* 5 do Cargo *a* Butter, N. Y. dairy lb 14 *a* 16, do Shipping 10½ *a* 11½, do Philadelphia 10 *a* 11, Hog's Lard 9 *a* 11, Pork Mess bbl 13 *a* 14 do Prime 10 50 *a* 11 25, Cargo *a* Cheese, American, lb 5½ *a* 7, Hams, Virginia 10 *a* 11, do Northern 10 *a* 11,

Rags—duty, Free. Foreign lb 4 *a* 8¼, Country 3 *a* 5

Rice—100lb 3 *a* 4

Salt—duty, 15 cents per 56lbs, Turks Island, bush. 55 *a* 56, Isle of May 52 *a* St. Ubes *a* 50 Cadiz 44 *a* Lisbon 47 *a* Liverpool, ground 41 *a* 42, do blown *a* do do sack 1 94 *a* 2

Sugar—duty, Brown 3, White clayed, 4, Refined, 10 to 12 cents per lb, British Island, lb 6 *a* 9, St. Croix, 7 *a* 9, New-Orleans, 5 *a* 7¼, Havana, 9½ *a* 11½, do Brown, 6½ *a* 7¾, do Muscovado, 3 *a*, Porto Rico, 5¼ *a* 7½, Brazil, White, 6½ *a* 8¾, do Brown, 5 *a* 6¾, Manilla, Brown, 6½ *a* 7, Lump, 13 *a* 14, Loaf, 14½ *a* 16¼.

Sumac—duty, 12½ per cent. Sicily, ton 85 *a* 90 Trieste, 55 *a* 60 American, 35 *a* 60.

Tallow—duty, 1 cent per lb. Foreign, lb, —*a*—— American, 10¼ *a* 11

Wool---duty, 4 cents per lb. and 50 per cent ad. val. Merino, Am. Fleece, lb, 45 *a* 70, do pulled, 45 *a* 60, Common, 25 *a* 35, Pulled, spinning, *a* 50 Lambs, 1st quality, 56 *a* 58, do 2d do 38 *a* 40 do 3d do 28 *a* 30.

New-York Cattle Market, Monday, October 10. About 700 head, 130 unsold, prices $5 to $6,50.

Sheep and Lambs, 2000, the former brought from $2 to 5, the latter $1,50 to $3.

Swine—very few in market.

ART. CCLXVII.—*Practical Observations on the Principles of Breeding.*—[Continued from page 264.]

There is not much diversity of opinion as to the ages at which animals should be put to breeding; and it would appear most reasonable that they should first have attained perfect maturity. It certainly injures the appearance of the male of all species to allow them to procreate before their persons are fully developed. With the female I have not observed the same thing to happen: and I have found that the earlier a female produces young, the better milker she generally is. The horse will procreate and the mare conceive at two years old,—sometimes earlier; and some of my best stock has been produced thus. The hog will begin to breed very young,—perhaps at six months old. Their produce begotten when they are very young are few in number and generally puny.—The cow kind will breed at a year old, or a little less; I think at that period, it is injurious to the male, but not so to the female. The most kinds of sheep will produce young at about fourteen months old; the merino has not with me, brought forth under twenty months, and generally not till after two years old. I have never known a full blooded merino produce more than one lamb at a birth; while with our common sheep two are common, and I have seen three, and rarely four. I would say that where the females of any kind of domestic animal, are intended to be kept as breeders, they may be left to the guidance of nature, as to the age at which they will commence bearing young; but restrain the male, if possible, till he is perfectly mature, in a great degree at least, if not wholly. Besides, what has been before suggested, favoring this difference in the management of the different sexes, it may be observed that no more is required of the female in a state of domestication, than there would be in a state of nature, which is altogether different in regard to the male.

I am convinced that too much service is required of our males of all kinds of stock. A buck to fifty or eighty ewes, is not less than the usual rate in this country; which is more than double what is proper and what is common in other countries. The finest improved foreign cattle have been brought to their present condition in the hands of persons who let their bulls to very few cows. With us I have known a fine bull serve a whole neighborhood. After much inquiry I am satisfied that the average get of a stallion, when perfectly vigorous, will not exceed seventy foals of a season. Yet they are frequently let to double and treble that number of mares. Fine stallions, however, frequently have *teasers*; and where that is the case, those who breed from them would lose nothing by taking care that the teaser is not called on for more than his appropriate services. Any one who will take the trouble to examine, may know that nearly all the best horses of other countries have been begotten by sires who served only a dozen or twenty mares during a season. It is much to be questioned if a single capital English horse was begotten while his sire was standing as a common stallion.

In regard to the proper size of animals, I will not say any thing, as that does not belong to the subject I am noticing. The *relative sizes* of the male and female from which you breed, does, however, require notice, and is a subject of great importance. They should be as nearly as may be of the same size; or if there be any difference; the female should exceed in stature. When the male is much the larger in stature, the progeny will be weak bodied, long necked, and what is called leggy. And since the people have gone wild about tall horses and large beef and mutton, turn where you will, you see animals such as I have described above. If the male is smaller than the female, the progeny will be compact, heavy bodied animals, with well proportioned extremities; not the most beautiful, but beyond doubt the heartiest and toughest animals in the world. It is to be observed that this kind of stock is produced only when the difference between the size of the parents is not excessive. For I knew an instance of a very small, heavily made, Canadian poney, which was brought to this region, that ruined much stock. The poney paced very well and became celebrated in consequence of having been ridden by a young lady of good family, who fell into a rage of love with an old man of some consequence among us, and eloped with him to his majesty's North American possessions. The girl was pursued and came back on the pacing stud; whereby he became as notorious as the feat of his former owner. He was about thirteen hands high, and was let to many of the largest mares in the country—many exceeding sixteen hands in height. In the stock thus produced, all the peculiarities indicated above were aggravated to a most unsightly and absurd degree. They were long bodied, lizard legged, and squat, with diminutive extremities and immense frames, resembling nothing so much as the kind of dog called a bull-fist. These results may perhaps be accounted for by supposing that when the male is much smaller than the female; the fœtus is smaller than the mother might well nourish, and consequently the central parts become more fully developed, becoming almost a montrosity, the difference is very great; so when the male is much the larger of the two, the undersized mother is incapable of nourishing the fœtus properly, and hence its extremities become unduly developed. I do not, however, vouch for this, nor for any theory; intending merely to throw together a few important facts.

If I desired to procure an animal of a particular description, no matter what, I would be more particular about its dam than its sire. Injuries from improper service, and service at improper times, frequently befal the male—more rarely the female. Many other considerations will readily suggest themselves, looking to the same result. But over and above them all, I am convinced that the young of all creatures do in general follow more nearly after the qualities of the mother than the father. They partake more of her constitution, of her temper, of all that is good or bad about her. I think there is little doubt that any constitutional ailment of the mother is very apt to affect her young; while there is just as little that any such ailment of the father will not do so, except it be first communicated to the mother. If this be true, it seems conclusive of the other point. My own experience goes in the same way: and there are many recorded facts that I think put the matter at rest, though I do not remember to have seen the inference to which they lead stated, or the law of animal nature which I am recounting urged. I will mention one very striking case. The progeny of Diomed are no doubt the finest horses on the continent; and Archy is the finest among

them. The stock of Buzzard are perhaps inferior to few except Diomed, and Hephestion is certainly the best among them. Why is this? Archy and Hephestion are both out of Castianira, who was the best mare ever in this country, and was descended from the best stock ever in England. Every animal she produced was of the very choicest kind. Nor was this absolutely peculiar to herself. Many females of various kinds of stock, have done the same; and very many others have produced superior animals to the extent of half or three fourths of all their young. The smallest of these commendations cannot be bestowed on any male that ever lived. I would press this point with the greater earnestness, as I fear it is generally disregarded, if not disbelieved.

There is probably no race of animals among us so perfect that every individual of it is fit to preserve as a breeder. The habit of the country is to make the selection by or before they have completed their first year. This may do with those species that come very early to maturity, but the cow does not reach perfection until its fourth or fifth year, nor the horse probably so soon. With these animals the foregoing practice is very impolitic. The colt or calf, whose dam suckles best, will by most persons be considered best until it is weaned, and frequently for some months afterwards. Indeed very little can be predicted of them, especially of the former, till they are two or three years old. The most promising when young, often turn out poorly, and the very reverse is as frequently the case. Animals for breeders should never be selected absolutely, until you have allowed them to be old enough to be gentled and used, and if possible, tried also, for that is among the chief points at last.—With the horse there is a great collateral advantage in this delay; for as the genital organ developes itself very little after emasculation, those who are operated on at an early age, are much the most liable to stranguary and various other kindred disorders.

Some persons consider color very important in some kinds of stock, and the belief is not uncommon that aside from the known principles of breeding, there are artificial means by which any desired result of that kind may be rendered probable, if not certainly secured. I have no certain knowledge on this point, nor have I the least faith in the matter.

It has also been supposed, that you can by a particular course of culture, regulate to a great degree the proportion of males or females to which your stock may give birth. It is alledged that under circumstances highly propitious to the increase of any given species, most females will be produced, and under contrary circumstances most males. If this law should be found to exist, it is manifest that we have the matter very much in our hands. I have seen some experiments which render the fact in a small degree probable; but my own experience is against it, and I suppose it will turn out to be merely an ingenious speculation.

The principles here laid down, apply with equal force, whether we adopt the system of remote crosses, or that of in-and-in breeding. I have no disposition to hazard a conclusive opinion on the relative advantages, or the reverse of those much contested systems. It cannot be denied, however, on the one hand, that the in-and-in system will more certainly and speedily stamp any qualities you wish to perpetuate, as constitutional on a race of animals: nor is it to be questioned on the other, that that manner of breeding, if followed up, on near affinities, especially in the direct line, will weaken the constitution, and affect injuriously the virility of several kinds of animals. It has occurred to me that the true principles on which the controversy will be finally settled, have not as yet been brought into discussion. I incline strongly to the opinion that animals which are by nature gregarious, may be bred with great advantage on principles, which will not do with those that are naturally exclusive in their habits of copulation. Again, it is well known that animals which ordinarily produce several young at a birth, will have of the same litter the offspring of different fathers; whereas, those which ordinarily produce but one at a birth, are frequently rendered temporarily barren by a similar indulgence in promiscuous intercourse. I suspect it will turn out when this subject is fully understood, that these two kinds also require the application of different, perhaps adverse principles of breeding.—R. J. B. Fayette County, Kentucky.—*American Farmer.*

ART. CCLXVIII.—*French Agriculture.* [Continued from page 250.]

The only native breeds of French horses which have ever been considered superior, are those of Normandy for the carriage, and of Limousin for the saddle; but even these, especially the former, are now much degenerated, and the pure species nearly extinct. Since the peace, many of the best carriage and saddle horses, the lighter sorts at least, which are used in Paris, have been imported from England, or are descendants of English mares. Many good saddle horses are also sent from Mecklenburg to Paris. It must, however, be said that, with a little care, France would soon possess one of the most valuable, because one of the most useful, though not perhaps most showy, breeds of cart horses. Most of those imported into England, and called French, are Flemish; and, though fine looking animals, they are not generally by any means so hardy, well made, or useful. The French cart horses are small, usually from 14 to 15 hands high, but they are what the jockies call "a large horse in a small compass," with a deep body, wide chest, great muscle, clean legs, and remarkably "home ribbed." A brewer would think them too small for his dray, but for general purposes, and especially for agricultural uses, they are admirably calculated. Strong enough to plough with two, (which is done on every kind of soil,) and light and active enough to trot long stages in a coach, at the rate of seven miles an hour, they are fit for any work which they may be required to do. They usually work full ten hours a day, coming in at eleven to rest and feed for an hour; this is the best proof of their capability to endure fatigue, which is also increased by the greater number being entire horses. The least attention on the part of the farmers to breed only from the larger and best formed of these animals, would soon create a most valuable and particularly *useful* breed, very like those excellent English horses called Suffolk Punches.

Pigs are by no means so general in France as in England, on account of the lower classes, and even of the agricultural laborers, in the former country eating comparatively little pork, and their food consisting

chiefly of bread, vegetables, fruit, and of soup, which is more often made with beef or mutton than with pork. In some of the provinces in the centre and south of France, pigs are, however, bred in large herds, whence they are annually driven to all parts of the kingdom for sale. They are regularly grazed like sheep in those districts, and have little or no other food but grass, weeds, acorns, &c. which they thus pick up in the fields. The usual breed is large, not unkindly or bad-flavoured when put upon good food, but very ill-made. They have a long, narrow, and shallow body, with a large head and flap ears, and very long legs. We have seen some droves of them which, to English eyes, would appear much more fit to substitute for a pack of hounds than to fat for food. They are like the old English pigs now nearly extinct in England, but a specimen of which may still be seen in the worst Irish breeds.

From the number of small farmers and persons who are half-labourers, half-farmers, by cultivating a few acres of their own land, poultry is very abundant in every part of France, and forms a very considerable portion of the food of the middle and upper classes. Pigeons are kept upon most farms, but in Artois, Picardy, and other northern provinces, dove cotes, containing from five hundred to several thousands of those birds, are frequently met with. Their dung is highly appreciated, and is used in manuring for flax and other valuable crops. It is chiefly from these districts that so many pigeons are sent to London, and few inhabitants of the metropolis have an idea how often they eat foreign poultry, foreign butter, foreign cheese, foreign eggs, and bread, pastry, &c. made of foreign flour.

Wool is worth more in France than in England. The prices last year (which were considered very low) were about 9d. per lb. for the *unwashed* (equal to 1s. 6d. if *washed*) Wool, of the common crosses between the native breeds and the Merino, which is a little finer than that of our Downs. These sheep give about eight pounds of *unwashed* Wool at a sheering. The Wool produced by the Dishley (new Leicester,) and some of the crosses of the best French long-wooled sheep with fine Dishly rams, sells for 3s. per. lb. *washed*, of which these crosses give about 5lb. To enable those farmers to improve their sheep who have not the means of purchasing expensive breeds, any number of these may be hired by the year upon fair terms. This is chiefly done, and was originally suggested by some spirited members of the Paris Society for the improvement of Wool.

Lamb and veal are much less eaten in France, or indeed in any other country, than in England; foreigners consider such food only fit for people of fortune. Except in Paris, the veal is seldom good, from being generally killed at three or four weeks old in a lean state. The prices now usually obtained by farmers near Paris, are as follows: veal 6d. per lb.; and beef, mutton, and pork, 5d. A good cow, when in her prime, is worth £16; a sound, young, well-made cart-horse £30; ewes of the common Merino cross, (smaller than South Downs 15s.); and a calf, a week old, 15s.

Remarks.—The above and the former articles on the same subject, show that France, by having the attention of her enterprising citizens turned to their domestic and internal concerns, may have her physical resources very greatly increased.—*Ed.*

ART. CCLXIX—*Report of the Viewing Committee of the Jefferson County Agricultural Society.*

[After speaking of the advantages of a Northern climate—such as the protection afforded to the soil and crops by snow, the superiority of vegetation in higher latitudes, and the bracing effects of a colder climate on the human system, the committee proceed to the more immediate objects in view. We have formerly expressed a wish to see the patriotic exertions of this society followed in the more southern counties: We do not, however, expect this very soon, unless the Jefferson society sends a mission among us to enlighten these darker portions of the State.—*Ed.*]

But to our duty in awarding the society's premiums. There were this year sixteen applicants for the premiums on farms. The farms were located in Champion, Rutland, Rodman, Watertown, Hounsfield, Pamelia and Brownville, and were respectively and particularly examined by your committee, with reference to their relative merits. We have to repeat the regret so often expressed here, that the farmers of the southern part of this county still continue their indifference to the exertions of the society, and by not becoming applicants, deprived the committee of the pleasure of visiting that part of the county. We regret it the more, as we believe an account of their farming would add to the present fair standing of our county.

Our printed list shows there are six premiums on farms. By the directions of the executive committee, all having had the highest or first premium are excluded from being candidates again; those who have had the lesser premiums may be candidates for the higher, but unless the committee should think them entitled to a higher premium than they had before, they are excluded also. For instance, any farm having heretofore had the second premium may be a candidate for the first, but if others who may apply should be considered by the committee as superior to it, this farm is wholly excluded, as it cannot have the second again, nor can it have a lesser premium. This rule has been followed by the committee, who deem it a very proper one, the object of the society being to encourage a continued exertion to do better. Some of the committee have served as such before, and they have no hesitation in saying that there is a visible, substantial improvement in the farming operations of this county within a very few years. The mode of tillage is greatly bettered; cleanliness is considered as indispensible now, and the first thing our good farmers tell you, and with the most perfect consciousness of its importance, is, I have, or shall soon expel bushes and weeds entirely from my premises. But although much has been done in this respect, all acknowledge the necessity of doing more. Our path-masters have in too many cases failed to comply with the requirements of the statute, and the bad effects are very visible.—It is a new provision, and we cannot too highly recommend a compliance with it.

The roller is getting into use, and is spoken of in the highest terms, confirming the experience of those who have used it for a long time. Fences and buildings, are evidently better, and the stone and red cedar in which the county abounds are applied to their proper use. As to farming tools, all the modern improvements, as far as they have been found practically use-

ful, have been introduced here. The committee cannot refrain from recommending to the attention of the wheat growing farmer, a thrashing machine in use at Mr. John Collins' in Watertown. It is cheap, not complicated, and does good work. The stock of the county is improving rapidly, the most improved breeds of horned cattle, horses and sheep are to be found in Jefferson county. The committee cannot too much commend the public spirit of the gentlemen who have at much risk and expense introduced some of the best stock of the horse kind into this county. Nothing can more certainly add to the permanent wealth of our country.

Our enterprising farmers have ascertained the value of a good name in the great markets of the country, and they are determined not to lose it. The best seed is sought for and procured; the value of a change in seed, as well as the seed animals, is known and practised; the benefits of rotation and manure are realised. The labors of the farmer have been abundantly rewarded the past season, and although there was some delay and injury from wet weather during the season of harvest, crops generally were well gotten. The wheat crop was generally good; the same as to peas and oats, but the corn crop exceeds for quality and quantity any thing ever known before in the county. Fruit, such as apples and plums particularly, are very abundant, and of the best varieties. We also saw in several places large quantities of the grape, introduced by Mr. V. Le Ray, in great bearing, and nearly ripe, samples of which were promised for exhibition on this occasion; and as far as we can hear, they will compete with those of the most favored climes.

We saw a few very fine pieces of hemp, indicating beyond doubt its adaptedness to our soil. In relation to the use of spirituous liquors in the performance of the various labor pertaining to the management of a farm, there was but one opinion as far as we could learn, and that was that they were worse than useless. The uniform civility and welcome received during their tour was extremely gratifying. The bestowers have our best acknowledgements.

A very brief description of the farms to which we have awarded the Society's premiums, will close this report.

The farm to which we awarded the first premium contains one hundred and sixty-six acres of land, of which one hundred and twenty are under improvement. The farm has been in the possession of the present occupant twenty-five years—has 681 rods of whole & half wall, and two hundred and forty-one rods of red cedar post and board fence. The farm is subdivided into lots of generally ten acres each—is appropriated to the raising of grass and grain, being well adapted to either. The land in tillage is well managed, and very free from weeds. There is sufficient orcharding on the farm, and the fruit of the choicest kind. The buildings are convenient and suitable for a farmer. Every thing on this farm is done in the best manner, and its general appearance would do credit to the oldest and best farming towns in the state.

The farm to which we awarded the second premium, contains about one hundred and ten acres, sixty-five of which are in a high state of improvement. The present occupant has been in possession of the premises about twenty-two years. There is some whole and some half wall, well built; but the principal fencing on this farm is with red cedar posts and board fence. Where rails are used, they are black oak split. Great attention is paid to cleanliness, and the proper preparation of the tilable land for crops is conspicuous. The buildings are of substantial materials, convenient and well constructed. The orcharding is extensive, there being about four hundred bearing apple trees on the farm, of which there are one hundred different varieties.

The third premium was awarded to a farm devoted principally to grazing—has been in possession of the present occupant something like thirty years. There are 160 acres of land in this farm, a suitable share under improvement. There is about a mile of whole wall on this farm, and the same quantity of half wall, all of the best kind. The half wall is staked with red cedar stakes, the rail fence the same, no other but red cedar stakes being used on the farm. There are about fifteen gates hung on stone posts, and shutting against the same. There is a sufficiency of orcharding on the farm, and it is well accommodated with water, carried in cedar logs. Bushes and weeds have no abiding place here.

The fourth, fifth, and sixth premiums were awarded to farms which had been in possession of the present occupants for quite a length of time. They are all three what we call grazing farms, though they all occasionally raise good wheat. There was a very handsome fallow on No. 5, prepared in the best order. No. 4 had a good proportion of half wall, and there was a proportion of half wall, and cedar post and board fence on the others. All these farms were remarkably clean, and free from bushes. Indeed, the owners as well as the committee considered this as essential to the receiving or giving of a premium.

The committee would do injustice to the owners of the farms to whom no premiums have been awarded, as well as their own feelings, were they not thus publicly to testify their high opinion of their merits as good farmers. The committee thought others had done a little better, and their duty as well as inclination compelled them to prefer the best. We hope defeat will only stimulate to greater exertions, and that another year will find the vanquished victors, in the laudable competition for the best farm.

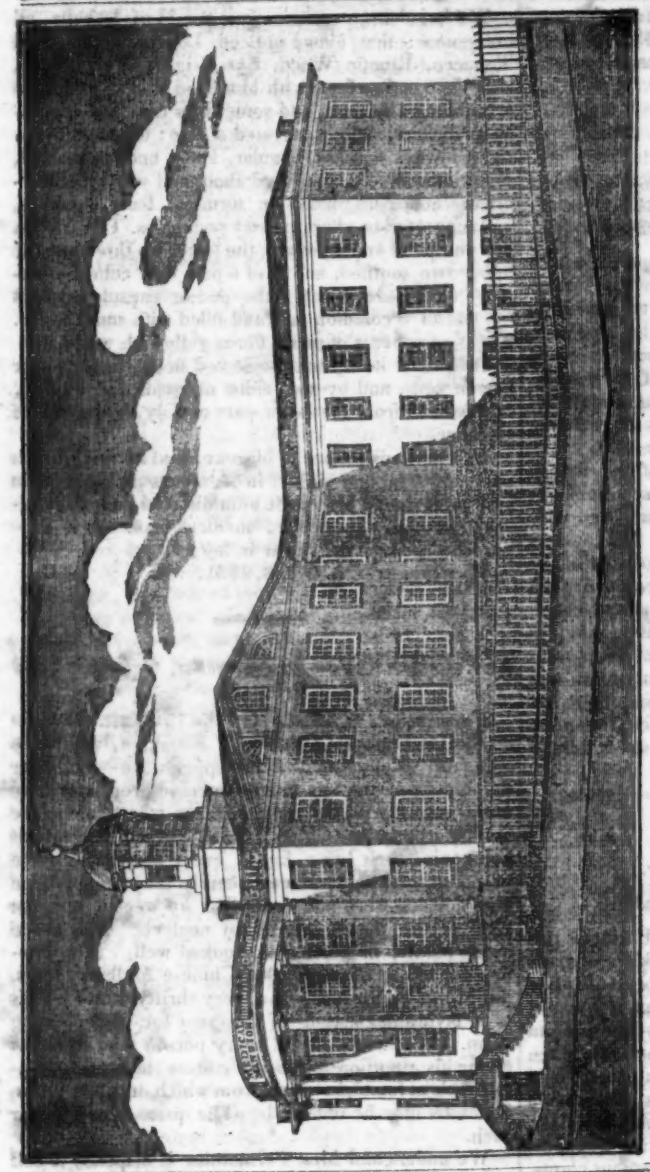
Joel A. Matteson for the first farm in the co'y,		$16
Hart Massay, second best,	do.	14
David Hale, third best,	do.	12
Asa Carlee, fourth best,	do.	10
Asa Cooley, fifth best,	do.	8
Anson Smith, sixth best,	do.	6

Viewing Committee, EGBERT TENEYCK, DORASTUS WAIT, WILLARD AINSWORTH, EDWARD S. MASSEY.

Live Fences.—Mr. FLEET, I am happy to find in several of the western and nothern counties of the State of N. Y., that the more enlightened part of the Landed Proprietors, together with the Farmers, are setting about in right good earnest, to plant Hawthorn Hedges, for their fencing. This we are told by the most respectable settlers amongst us from the Old Country, is a desideratum we stand much in need of, namely, "*a thriving and live hawthorn fence.*"

I hope in a short time to give you more particulars of the method used in planting—weeding—and protecting these *live fences* during their infancy from *Cattle, Horses, Sheep, and Goats.* Yours,

Oct. 10, 1831. AN OLD FARMER.



ART. CCLXX.—*Medical Mansion of New-York.*

Among the institutions calculated to increase the privileges of our city, and to add to the relief and comfort of the sick, is the Medical Mansion, situated at the corner of Amos and Washington Streets. The location is healthful and retired, being near the Hudson River. The appartments are of various dimensions, and suitably and appropriately furnished. The inclosed grounds, on both sides of the building, are rendered beautiful and inviting by flowers and ornamental shrubbery. Accomodations are provided for the use of warm, vapour, and cold baths.

This establishment has been prepared for the accomodation of persons who visit this city either for business or pleasure, and, absent from home and friends, become afflicted with sickness; and also for those who come here to receive advice and benefit from the practice of the learned and experienced Medical Faculty of this metropolis.'

The importance of such an institution can be fully appreciated only by those who have experienced the inconvenience of being sick at public houses, where it is difficult to obtain the requisite attendance, and at private boarding houses, or even at the residences of friends, where often the arrangements of the whole family are deranged by one sick person. We have an excellent Hospital, it is true, but as it is a more public institution, and under regulations adapted to the wants of a promiscuous public, personal convenience and pleasure cannot be so well consulted. The sick from the country can here, at the Mansion, receive all the medical aid which our city affords.

ART. CCLXXI.—*Proceedings of the New York Horticultural Society.* [Continued from page, 233]

Sept. 13—Mr. McBrair presented 2 Malecaton Peaches, weighing 6½ and 6¾ oz.

Mr. John Carr, gardener to John A. King Esq., of Jamaica, several bunches of fine Grisley Frontenac Grapes, from a vine two years old.

Sept. 20—Mr. Alex. Smith, seedsman, two bunches of Burgundy Grapes, weighing 32¼, 13¼ oz.

Mr. Walsh, of Lansingburgh, 2 specimens of Salsify.

Mr. John P. Roome, 13 seedling peaches—2 weighing, each, 7¼ and 7 ozs.

Mr. Hogg, six beautiful varieties of Dahlias, Passiflora incarnata, P. edulis, P. racemosa hybrida, Verbena melindris, very beautiful, and Penstemon pulchella, from the Columbia River, recently introduced by D. Douglass, seed sent from the London Hor. Society to Dr. Torrey. Mr. H. has five other species, collected in the same region, perennial, hardy, and much admired. A number of other beautiful and rare flowers were exhibited by Mr. Hogg.

N. Saltus Esq., 6 peaches, weighing 3lbs.—2, each, 8½ and 8⅜ oz.

Sept. 27—Mr. Wilson presented a Convolvulus major var. alba, a spontaneous seedling.

From the garden of G. G. Howland, of Flushing a very large Prince's Feather, Amaranthus hypochondriachus, weighing about 50lbs.

October 4—Mr. Hyslop, gardener to N. Prime Esq., presented two Egg Plants, 4 lbs. 7 oz., and 5 lbs. 6 ozs.: and six very fine flavored Seckle Pears.

Oct. 11—Mr. Fleet, from C. Downing, of Newburgh, two seedling Clingstone Peaches, two beautiful specimens of Brown Beurèe Pears, and eight bunches of

well filled and mature Grapes—consisting of two of Isabella, two of Catawba, Bland's, Bland's pale Red, and two of Elsingburgh, a small but very pleasant grape.

ART. CCLXXII.—*Notice of an Oration delivered by* Hon. EDWARD EVERETT, *on the 14th inst. at the instance of the American Institute of this City.*

Seldom have our citizens been banqueted with a richer mental feast than that given by Mr. Everett on this occasion. We would not pretend to convey to our readers any adequate idea of the ability, research, and skillful exposition of facts, conspicuous in every part of the address—nor of the purity of the diction, nor of the eloquence and force of his language—but merely point out one fact more immediately relating to agriculture.

In the first years of the settlement of the British colonies, as long as the troubles and persecutions existed in Great Britain, there was a constant and very numerous emigration to this country. The consequence was, a great demand for the products of the soil—causing farmers to receive great prices. A good cow or bullock commanded 25 pounds sterling—equal, considering the difference in the value of money, to near $300. In the course of two or three years after the death of the royal persecutors, the emigration was comparatively nothing, and in consequence, there being a less demand for the farmer's produce, the price of a bullock fell to 5 pounds! Great distress followed in every department of agriculture.

[For the New-York Farmer.]

ART. CCLXXIII.—*Hydrophobia.*

In some of the late numbers of the Farmer, this terrible disease has been noticed, as a subject of great interest in rural economy, for as man and beast are alike obnoxious to its effects when communicated, it is an object of importance to the farmer, to possess if possible an antidote or a cure, should any of his cattle be bitten by a rabid Dog. Sculcap has long been in esteem as a preventive, and the public attention has lately been called to the curative powers of the Lobelia inflata, sive emetica, Emetic weed or wild or Indian Tobacco, one of our most powerful medicinal indigenous plants. Some well authenticated cases of cures by a physician of New-Hampshire, are mentioned by a respectable clergyman of that state, the Rev. Jonathan French. It was first tried on the swine of several farmers bitten by a mad dog; those to whom the Lobelia was given lived, while the others, all died of Hydrophobia. It was subsequently tried on the human family with equal success; two cases are mentioned, a son of Mr. Mooney of Canterbury, and a Mr. Newell of Reading, Massachusetts; in the case of Mr. Mooney's son, the disease had made great progress, it had become necessary to confine him, and to force the decoction into his mouth, from which it was ejected and at his nose, but continued efforts were attended with success.

The remedy is given in a strong decoction in frequent doses, till it operates as an emetic, and continued, but less frequently afterwards.

We have three varieties [species ?] of Lobelia, all indigenous: that above noticed; Lobelia inflata, wild Tobacco, Emetic Weed; Eye Bright, is an annual, rising one or two feet, with branched stems, the leaves are oblong alternate, and sometimes crowded together in clusters, slightly serrated sessile; the stem is upright, always solitary, angular, leafy, and pubescent, sometimes hirsute, branched about mid way: the flowers are numerous placed on terminal, leafy, racemus, and supported on short axillary peduncles. The corolla has one petal and is labiate, the lower lip three and the upper two toothed, and is of a pale blue colour externally and violet within; the pod or capsule is about the size of a common pea, and filled with small seeds. The root consists of many fibres yellowish white.

It is found in dry and neglected fields, in clayey or barren soils, and by the sides of roads and ditches. It blossoms from the latter part of July to the end of October.

It is perhaps proper to observe, that as this plant is very powerful and violent in its effects on the human system, it should always be administered under the inspection of an experienced medical man. It is supposed to produce the slaver in horses.

Westchester Co. Oct. 8, 1831. C.

ART. CCLXXIV.—*Miscellaneous, Original, and Selected.*

Parmentier's Garden.—On the 15th inst. we visited the Horticultural Garden of Brooklyn, and were agreeably disappointed in its appearance—for, after the demise of the late much lamented proprietor, and more recently of his only son, on whom alone the mother's hopes rested, we expected to see the grounds betokening their loss; but in every part there were proofs of the hoe, and consequently the varied foliage and flowers were not concealed by weeds, nor the vigor of the plants injured by neglect. The green house plants, in particular, looked well. Mrs. Parmentier has upwards of 2000 Chinese Mulberry trees, the Morus multicaulis, in a very thrifty state. This is a favorable season of the year for transplanting them. We should advise every person who thinks of giving his attention to the silk culture to furnish himself with at least one plant, from which, in a few years, hundreds may be obtained. The price is one dollar each.

We understand Mrs. Parmentier is disposed to sell her stock at reduced prices, and also the Garden itself, should a purchaser be found.

Drying Peaches.—In a former number of the Farmer, we recommended drying peaches with the skins on, in order to preserve their flavor. We are pleased to find our advice supported by the following useful hints from the Southern Agriculturist.—*Ed. N. Y. Farmer.*

Two years ago, this coming peach time, I made an experiment on a small scale in drying peaches with the skin or pairing on, and succeeded better than I expected. I took the kind called open stone, perfectly matured but not too soft, and after rubbing all the scurf or down off with a course wet cloth, divided each into halves, filled the cavities with sugar, placed them skin down on a portable scaffold (which is to facilitate their removal to and from their drying place without hand-

ling the fruit): by this method the pores are so closed by the skin on one side, and sugar on the other, that the delicious flavor of the peach is retained in a much greater degree than in the common way. Could drying houses, with all the necessary apparatus, be established, there is no calculating the quantity of that kind of fruit which might be dried, and that too of a superior quality as respects delicacy and flavor. Proper attention paid to this subject, might make dried peaches as lucrative an article of commerce to our country as figs to Turkey, or raisins to Spain.

Alabama Hemp Growers and Manufacturers.—It is said that some planters in the vicinity of Huntsville, Alabama, are turning their attention to the cultivation of Hemp, and the manufacture of Cotton Bagging and Bale Rope. So far, their prospects are said to be very encouraging, netting them a much greater profit than the growing of Cotton had heretofore done.

On the proper Cultivation of the Gooseberry.—When the plants are two years old take them up from the nursery and trim off all the suckers, and lower branches, leaving only one stem with a few branches at the top. Plant them in a rich light soil in a moist situation, and where they will be partially shaded by branches of trees. In the autumn, cover the ground around them with manure from the cow yard. The latter end of February thin out the branches very much, cutting them off close to the stem, taking out all such as cross each other, but be sure not to shorten the branches, for that causes them to throw out a great deal of wood and very little fruit. In the spring a quantity of young suckers will come up round the stem, all these must be cut off when green, as also any others that grow in the middle of the bush, which must be kept open so as to admit the air freely. It is also a great support to the bush to drive a stake into the ground close to the stem, as keeping it steady causes the fruit to be larger. This treatment is to be continued annually, and the fruit instead of depreciating as is usual, will rather improve in size, as has been proved by some planted 15 or 20 years ago. The ground must be spaded in the spring and kept perfectly clear of weeds.—*American Farmer.*

The Leaves of the Vine are greedily devoured by all cattle, especially the cow, sheep and hog, which are excessively fond of them. They are a great resource during a dearth of fodder. But it should not be forgotten that the wood will not ripen without the leaves; and that they are a great protection against the frost; as well as an essential towards a mature and plentiful crop. They should not be plucked; but, as they fall, should be gathered, heaped in a dry place, or salted and packed hard in barrels. They may be packed alternately with straw or hay, which soaks the taste of the leaves and becomes a new delicacy to the cattle.

[*Vine Dresser's Manual.*

To keep Grapes Fresh---The following process is simple, and the success certain. Take a new cask, dry and strongly hooped, stand it in some spot where the temperature is always very nearly equal, cover the bottom of it with bran that has been well dried in the oven; and put into it the ripe, unblemished, perfect bunches, layer by layer, filling in with the bran, before another layer is laid down. When filled, the head must be fastened down air-tight. Grapes thus put up will keep so well, that 7 months after the vintage they will be unspecked, without mould or foreign flavor, even the greyish-white down upon them, the same as if fresh that moment from the vine. Kiln-dried spent ashes are used by some instead of bran; or, as *Franklin* recommends, very dry millet seed. It was his custom to keep grape fresh in kegs lined with Chinese sheet lead, and filled compactly with millet-seed. The Spaniards use saw-dust, dried in the sun; and the casks are previously painted inside with pitch.

[*Vine Dresser's Manual.*

Snake Fern.—Mr. Shaw, By giving publicity to the following letter from the postmaster at Rossville, the object of the writer will be most readily accomplished, viz: to diffuse generally, the knowledge of a remedy for a distressing or alarming accident to which all are more or less liable; and the rapidity with which the poison is absorbed, makes it exceedingly desirable that some antidote should be applied before it can be done under the direction of a physician.

The family of Ferns (the first order of the class Cryptogamia) is very numerous. I am not prepared to say that this species may be found abundantly in this vicinity, but presume it may. To the intelligence and respectability of Mr. Coody, all who have acquaintance with him will cheerfully bear testimony.

Yours, respectfully, H. Hull.

Dear Sir,—I herewith enclose you the *Snake Fern* which will cure all kinds of *Snake bites.* It has been known to effect a cure when the patient's teeth had to be forced apart. It should be bruised (top and roots) and infused in water or sweet milk (the last is preferable) and taken as the stomach will bear it, till the symptoms subside.

I have no doubt but that it would be a valuable medicine in the case of Hydrophobia. I have lived in this nation 28 years and have never known or heard of an Indian being affected with that disease. It is certainly worth a trial. Yours, &c. Joseph Coody.

[*Georgia Athenian.*

Zinc.—Zinc is mostly found in the state of a sulphuret, and accompanies lead in most mines. It is found in the Southampton lead mines in granite and gneiss. It is found in crystals of a waxy hue and almost transparent, in the geodiferous lime rock (or swine stone) every where from Genesee river to 20 or 30 miles west of Niagara Falls. It is one of the most abundant metals in nature except iron; and in Wales its ore was employed till lately in mending the roads. It is used in China for the current coin, and for that purpose is employed in the utmost purity. It is a very combustible metal, and when broken appears of a shining bluish white. It becomes fusible in a temperature of 700° F. above zero, and is 7 times heavier than water.—*Naturalist.*

Turtle Catchers on the Coast of Darien.—At San Blas, on the coast of Darien, a small settlement of Indians is established for the sole purpose of taking turtle. The settlement is situated among a group of kays, and has a small but very secure harbour, in which coasters may safely ride. It is under the management of three English, two American, and three Collombian traders, who make avast profit from the shell. The quantity of tortoise-shell taken by them amount on an average to 15,000 lbs. per year, the value of which is about 28,000*l.* The produce of their em-

ployment varies very much according to the nature of the season, as in some years they take as much as 32,000*l.* worth of shell; an enormous produce for one out of the many like establishments on this coast. It is a curious fact that the handsomest shell, and consequently the most valuable, is striped from the animal while living, the beauty of the shell always becoming less as the animal dies. The dreadful torture which the creature endures by the operation, finds no consideration in the minds of the traders.—*Foreign Publication.*

A new kind of Paper has been lately manufactured in France, which is stated to be superior to any other for certain purposes. It is made from the root of the Althea officinalis, and is spoken of as "by far the best kind of tracing paper, permitting the use of ink on the black lead pencil, besides being of a purer color than any other."

Fair of the American Institute of this city was held during last week. The articles exhibited were very numerous, and creditable to the state of American manufactures. The department of agriculture was not well represented.

New-York Cattle Market, Monday, October 17.

About 800 cattle, nearly all sold—prices $5 to $6,50—averaging $6.

Sheep and Lambs—pretty good supply, rather slower sale than last week.

Swine commands a price not varying from former weeks.

Cows and Calves sell well—30 to 45 dollars.

Hay remains stationary—60 to 75.

New York Produce Market, October 19, 1831.

Ashes—Per 100 lbs. Pots, first sort, 1831, 5 10 *a* 5 12½, Pearl, *a* 5 30

Barilla—duty free, Teneriffe, ton 38 *a* 45

Beeswax—duty, 15 per cent ad. val. White, lb. 44 *a* 45, Yellow 18 *a* 21

Bread—Navy, lb *a* 3½, Pilot, *a* 4½, Crackers, 5½ *a* 5¾

Coal—duty, 6 cents per bushel, Liverpool chal. 12 *a* Scotch *a* Sidney & Bridgeport 10 50 *a* Albion, 9 50 *a* Virginia, 5 *a* 7 Anthracite, ton 6 *a* 7

Cordage—duty, tarred, 4 cents, untarred, 5 cents per lb. Foreign, lb 11 *a* American, cwt. 41 *a*

Cotton—duty, 3 cents per lb. New-Orleans, lb 10 *a* 12, Upland 7½ *a* 10, Alabama 8 *a* 11, Tennessee 8 *a* 9½

Cotton Bagging—duty, 5 cents per square yard, Hemp yd 13 *a* 17, Flax 12 *a* 16, do American 19 *a* 21

Feathers—duty, 15 per cent ad. val. Live Foreign lb 14 *a* 20, American 35 *a* 37½

Flax—duty, $50 per ton, Russia, lb 10 *a* 11 American 6 *a* 8

Flour & Meal—N. Y. superfine, bbl. 5 62½ *a* 5 69, Troy 5 69 *a* 5 75, Western Canal 5 81½ *a* 6, Ohio 5 62½, *a* 5 69, Philadelphia *a* Baltimore Howard-st. 6 *a* 6 25, Richmond city mills *a* 6 25, do country 5 62½ *a* 5 75, Alexandria & Georgetown 5 62½ *a* 5 87½, Fredricksburg 5 62½ *a* Petersburg 5 62½ *a* 5 69, Scratched and fine 5 87½ *a* 5 50, Middlings, fine 5 *a* 5 25, Rye Flour *a* 4 25, Indian Meal 3 75 *a* 3 87½, do do hhd. 17 50 *a*——

Grain—Wheat, N. River, bushel 1 12 *a* 1 16, do Genesee 1 18 *a* 1 21, do Virginia 1 12½ *a* 1 15, do N. Carolina 1 6 *a* 1 12½, Rye, Northern *a* 80, Corn, Yellow North 67 *a* 68, White, L. Island and Jersey 73 *a* 74, Southern 55 *a* 62 Barley, N.R. 1 *a* 1 15 Oats, South and North 37 *a* 43, Peas, white dry, 7 bushel 7 *a* 8, do black eyed bushel *a* Beans, per tce. 7 bushel 9 *a* 9 50

Hemp—duty, On Russia, $60 per ton, Manilla, 15 per cent ad. val., Yarns, 5 cents per lb. Russia ton *a* 275, Manilla 240 *a* 245 Sisal *a* American. dew-rot 160 *a* 200, Yarns, Kentucky lb *a*

Honey—duty, 15 per cent ad. val., Havana gal. 50 *a* 51

Hops—first sort 1831, lbs 13 *a* 14, Second Sort *a*

Horns—duty, 15 per cent ad. val., Horns Ox per. 100 3 *a* 20

Lumber—Yard selling prices, Boards N.River, M. ft. *a* 15, do Eastern Pine, 16 *a* 17, do Albany do pce. 16 *a* 17, Plank, Geo. do M.ft. 25 *a* 35 Staves, W. O. Pipe M. 56 *a* 60 do hhd 36 *a* 40, do bbl 29 *a* 32 do R. O. hhd 27 *a* 28 Heading, W. O. 54 *a* 55, Hoops 25 *a* 28 Scantling, Pine 15 *a* 16 do Oak 20 *a* 25 Timber, Oak sq.ft. 20 *a* 25, do Gen. Yellow Pine 25 *a* 30, Shingles, Cypress M. 3 75 *a* 4, do Pine bdl 2 50 *a* 3

Provisions—Beef, Mess bbl 7 50 *a* 8 , do Prime 4 50 *a* 5 25 do Cargo *a* Butter, N. Y. dairy lb 14 *a* 16, do Shipping 10½ *a* 11½, do Philadelphia 10 *a* 11, Hog's Lard 9 *a* 10, Pork Mess bbl 12 *a* 13 do Prime 10 *a* 11 , Cargo *a* Cheese, American, lb 5½ *a* 7, Hams, Virginia 10 *a* 11, do Northern 10 *a* 11,

Rags—duty, Free. Foreign lb 4 *a* 8¼, Country 3 *a* 5

Rice—100lb 3 *a* 4

Salt—duty, 15 cents per 56lbs, Turks Island, bush. 55 *a* 56, Isle of May 52 *a* St. Ubes *a* 50, Cadiz 44 *a* Lisbon 47 *a* Liverpool, ground 43 *a* 44, do blown *a* do do sack *a* 2 12½

Sugar—duty, Brown 3, White clayed, 4, Refined, 10 to 12 cents per lb, British Island, lb 6 *a* 9, St. Croix, 7 *a* 9, New-Orleans, 5 *a* 7, Havana, 9½ *a* 11¼, do Brown, 6½ *a* 7¾, do Muscovado, 5 *a* 7 Porto Rico, 5¼ *a* 7¼, Brazil, White, 6½ *a* 8¼, do Brown, 5 *a* 6¼, Manilla, Brown, 6½ *a* 7, Lump, 13 *a* 14, Loaf, 14½ *a* 16¼.

Sumac—duty, 12½ per cent. Sicily, ton 85 *a* 90 Trieste, 55 *a* 60 American, 35 *a* 40.

Tallow—duty, 1 cent per lb. Foreign, lb, —*a*— American, 10½ *a* 11

Wool—duty, 4 cents per lb. and 50 per cent ad. val. Merino, Am. Fleece, lb, 45 *a* 70, do pulled, 45 *a* 60, Common, 25 *a* 35, Pulled, spinning, *a* 50 Lambs, 1st quality, 56 *a* 58, do 2d do 38 *a* 40 do 3d do 28 *a* 30.

Remarks.—Western Canal Flour maintains its price—principal sales of fair brands at $5,87 1-2. Small sales of Troy have been made at $5,75. Advices from Liverpool to 8th September, received yesterday per packet ship Birmingham, state a decline in that market of 1s. to 2s. per barrel. Rye continues steady at 80 cents. Corn is dull. Pork continues to decline—sales of city Mess have been made at about $13, and Prime at $10,75. But little new Beef has been received yet—the sales have been at $5,25 for Prime, and $8 for Mess.

[For the New-York Farmer.]

ART. CCLXXV.—*The Country Farmer.*—No. VI. *On the proper Education of the Sons and Daughters of Farmers.*

MR. FLEET—Whatever may be the condition of the Common, or Primary Schools, of the country of an Agricultural community, they are, and must be, the schools at which the sons and daughters of Farmers receive their school learning. If the condition of those schools be bad, let it be a first object of the Farmers to improve that condition, and elevate their character. The common schools are the common seminaries of learning for common men, and of course it should be the prime object of patriotism to see that they are good schools. If governments neglect this, let it be the business of the People. By far the largest proportion of the youth of every country, are indebted to those schools, alone, for all of what is called, however erroneously, their education. And by far the largest proportion of those who have become, in the brief period of American history, our most eminently useful men, enjoyed no other opportunities, in this way, and yet have become conspicuous over the world, as among the best, and wisest, and most talented and useful of men. This is no small praise, for it is truth. It is a like truth, also, that the good habits of life, acquired by those men in infancy, and as part of their education, from necessity, probably, in most cases, inured them to thought, ruminating thought, and thus laid the ground-work for manly maturity of mind, as well as of body. A half century has passed away, since our Fathers drew their swords for liberty, and gave to America the government of its choice. To say nothing of the causes, let me seriously ask of every man, who shall read these papers, to reflect upon the character of the *Men of the Revolution*, as they may well be characterized, as to physical, moral and intellectual stamina, compared with our men of the present day. In hardiness of constitution, firmness of muscle, and of purpose, as well as in personal appearance, and deportment, they stand conspicuous, models of men, long to be remembered. There was much less of effeminacy, in those days, and men were moulded for, and by, the exigencies of the times, leaving a distinct impress, upon the memory of succeeding generations, of the nobleness of character of our *Men of the Revolution.* If our happy country is to be blessed with such models, in coming ages, it will be to the Farmers that it will be indebted for their preservation, and to our Common Schools.

Having dwelt pretty fully upon the plan, and mode of education, of Farmers' Sons, in No. V., little more need be said upon the education of their Daughters, than, that, like that of the sons, it should be confined to English literature, and useful branches of instruction, in Common Schools. The boy, who has bespattered his ideas with the studies of an Academy, or College, a little Latin, a little Greek, a little rhetoric, a little logic, and got his head filled with notions of 'the classics,' is spoiled, forever, for the Farm. Think a little,—recollect what you have seen, and known, and you will see that this is, at least as a general proposition, strictly true. So it is with the girls, also, after having been '*eddycated*' at one of our fashionable Boarding Schools, where their brains have been turned with '*accomplishments*,' music, drawing, painting, belles-lettres, and a thousand fanciful notions of fashionable follies! Here is the true explanation, Mr. Editor, of the mystery you lately sought to unravel in speaking of the 'Mortgaged Farms of New-England,' and the 'Employment of Farmers' daughters.' They are first spoiled, by their education, unfitted for every employment, as Farmers' daughters, or Wives for Farmers' sons, and by consent of their parents, and then you would begin to talk about the employment of Farmers' daughters, and the mortgaged Farms! All that has been said about the importance of habits, in the education of boys, Farmers' sons, and of the mode of implanting those with their school learning, applies equally well in the case of girls, Farmers' daughters. The only difference, is, as to the season of the year; for girls can generally attend school better in summer than in winter. Females, too, are best taught by Female teachers; a Man's school in winter, and a Woman's in summer, is the best plan that was ever adopted, in Farming districts, for Common Schools. He must be either an invalid, or a very drone of a man, who, in a Farming neighborhood, where there is so much work in the fields, can content himself with teaching the alphabet to little girls. The very example, is a bad one, unless, unfortunately, the poor man is unable to toil in the fields.

He who would bring up his daughters for usefulness; as daughters, and for wives by-and-by, should be careful to have them taught nothing, at school, but what is useful. We have a saying, amongst us Farmers, that the daughters of the most of our town acquaintances, are brought up for '*dolls*,' pretty enough to look at, but never will do for wives. Bred to look upon labor as vulgar affairs for vulgar folks, and themselves as ladies, the more helpless the more genteel, it is no wonder such 'ladies' are sinking funds, in the wrong way, for their Fathers' fortunes; whether bred in town, or in the country. By far too much of this kind of feeling, is getting into many a Farmer's family, and, I am sorry to say it, Mr. Editor, even away up here, in the country. In my next No., I will endeavor to trace the causes of this evil, and may say something more about the necessary correctives.

Fifty years ago, when I was a Farmer's boy,—or even 30,—when, like you, Mr. Fleet, I was rather a *young* 'old bachelor,'—and used to visit the Farmers' daughters,—I never saw them in such a *flutter*, to hide a spinning wheel, when their 'company' was coming, as we see now a days! Instead of stealing off silently to milking, as if ashamed of having cows to milk, they used to accept our help; and many a time have I thought that they put on the more airs, for the *number of cows* in their *Father's dairies.* In those days, too, there were other marks of womanhood, about the daughters of Farmers, besides mere dress, beauties, in form and figure, which have vanished before the reforming hand of modern fashion. This is, perhaps, on the whole, as it should be. Such points of beauty, of mother nature's best works, are still found, where there is the most of perfect simplicity of character. These are the girls for wives for Farmers' sons.

September 4, 1831.

P. S. There is probably no Parent in this community, who attaches to Education a higher value, both as to its qualifications for the discharge of all our duties in this world, and in the way of a due preparation of the mind and heart for life in a better, through

eternity, than the writer of these numbers. Considering the mind of man as immortal, and that life, once begun, is never to have an end, his chief solicitude, in all he has to say upon Education, is, that its purposes should look more to eternal than temporal life, less to the things and vanities of time, and more to the due preparation for life hereafter. If we look seriously into it, we will find, perhaps to the surprise of many of us, that of all the things called 'accomplishments,' in fashionable education, very few of them can be considered of any importance, in relation to our future state of existence. Simplicity of heart and manners, leads to sincerity and purity.

ART. CCLXXVI.—*American Wine—Injurious Conquences of Injudicious Selections of Varieties of Wine Grapes.* By the EDITOR.

Within a few years foreign wines have greatly depreciated in the estimation of the inhabitants of this country. This has arisen from the practice of making them consist, more or less, of other ingredients than the pure juice of the grape. Instead of having a mild, simple, and wholesome stimulant, it is scarcely possible to obtain a bottle of wine that has not been diluted with water, impregnated with coloring drugs, sweetened with sugar, and rendered either acrid with acids, or intoxicating with distilled liquors. So decided and general is the opinion of the unhealthiness of the imported wines distributed and vended throughout the country, that the progress of the temperance principle threatens the conformation of habits that will operate as a non-importation act, and exclude this pleasant and wholesome beverage altogether from our tables, unless some guarantee can be given that it shall be presented to us a pure and harmless drink, instead of a poisonous compound. This guarantee, it is thought, can be found only in the manufacture of wine from the grapes of our own culture. Supposing this to be conceded, it will of course be perceived, that it is of primary importance to select those varieties that will produce good and wholesome wine without the addition of foreign substances. If we cannot accomplish this, let us for ever abandon the hope of enjoying American wine, and let us be satisfied with plucking the grape, and quenching our thirst with the universal beverage—pure, wholesome, and ever pleasant water. Taking it for granted that this is the sentiment of all good and patriotic men of our land, it is with regret that we see public journals, especially those devoted to agriculture and rural economy, recommending for wine, grapes whose "want of saccharine matter or acid may be supplied artificially." If "saccharine matter, tartartic or some other acid, and mucilage" are the only substances requisite for wine, we do not see why we cannot go to the shops for 'cream of tartar,' to the sugar cane or maple tree for 'saccharine matter,' and almost any fruit or vegetable for 'mucilage,' and then by adding "half water" and a "gallon of brandy," have the desired quality of wine. Indeed by the help of acids, distilled liquors, and sugar, a liquid, having resemblance to wine, may be obtained from almost any vegetable substance;—because they contain the substances which an analytical process of chemistry detects in wine. But no good chemist will say that these substances synthetically treated will produce the must of a good variety of grapes.—However accurately chemistry may resolve substances in the mineral kingdom into their more simple constituents, those of the vegetable admit only a very distant approach, either by analysis or synthesis:—consequently, in the present state of chemical knowledge at least, it is futile to expect to supply artificially what can be produced only by the delicate, varied, and, as yet, undetected elaboration of nature. On this point of the subject, we refer our readers to the New-York Farmer, vol. 2, pages 89, 101.

If, in this early period of producing American wine, we countenance the admixture of foreign substances, however harmless they may be under judicious management, we are opening a flood-gate to all those evils arising from the use of "the *brewed* and *deleterious* wines now sold at most of the shops as imported wines." There is no necessity for precipitancy in the manufacture of domestic wines. The only occasion of urgency is the substitution of mild, pure, and wholesome wines for those now in use. If our climate will not produce grapes that will make wine of the desired qualities, let us content ourselves in the enjoyment of this delicious fruit in its various other states. On the subject of artificial wines, we extract the following caution from Berneaud, one of the most celebrated French writers on wines.

"Do not seek to make artificial wines; it is a loss of time and money: you cannot imitate nature, or deceive any connoisseur, and most often you will have to reproach yourself with having been the origin of many a dyspepsia, and poisoned old men and invalids.—Throw away your recipes for Spanish and Rhenish wines; artificial wines are a deception that may induce immedicable injuries in the systems of their drinkers."

The importance of selecting good varieties may be seen from the following extract from Prince's Treatise on the Vine:

"The influence of the variety of the grape on the results of culture is deemed of such importance, that the selection of the vines is one of the primary considerations which the planter is to have in view in the formation of his vineyard. Indeed some intelligent French writers on the subject state, that it is the *first* point to which attention is to be given. And notwithstanding the great effect of soil on the wine, some very eminent authors contend that the variety of the grape has far more, and mention, as evidence, that many varieties of the grape have so peculiar and decided a flavor, that it cannot fail to be imparted to the wine which is made from them.

"It is with the selection of varieties for a vineyard as with trees for an orchard; if a man who plants an orchard uses from economy, or other motives, only natural stocks, or trees ingrafted with inferior and common kinds, he can succeed in forming an orchard it is true; but he discovers after it has come into bearing, that it is absolutely valueless from the worthlessness of its produce, and he is either under the necessity of regrafting it anew, and waiting another long period for it to attain a second time to bearing, or has totally to eradicate the miserable stocks, and repiant it with such kinds as are really valuable. Perhaps of all the false attempts at true economy, that of planting an orchard or vineyard with inferior fruits, or unsuitable varieties,

is the most weak in itself, and the most injurious to him who pursues it."

We would not imply by the above observations and extracts, that no American Grape will produce good wine;—we leave this to time and experiment. All we would wish to accomplish, is to discourage those interested in the vine culture from spending their time and money in expectation of deriving profit from any wine grapes but those of the best varieties. Of American wines, only that from the choicest varieties will ever compete with water and cider.

[For the New-York Farmer.]

ART. CCLXXVII.—*Qualities of Honey from Kalmia Latifolia.*

Kirby and *Spence* in their Letters on Entomology, give the late Dr. *B. S. Barton*, in the 5th vol. of the American Philosophical Transactions, as the authority for the following statement:—"In the autumn and winter of the year 1790, an extensive mortality was produced among those who had partaken of the honey collected in the neighborhood of Philadelphia. The attention of the American government! was excited by the general distress; a minute inquiry into the cause of the mortality ensued, and it was satisfactorily ascertained that the honey had been chiefly extracted from the flowers of *Kalmia latifolia.*" A similar statement is made in Nicholson's Encyclopædia, and also by the late Dr. Good.

More than forty years have now elapsed since that alarm was given, but I recollect no renewal of it in any *American* author. I profess not to give any opinion whether the cause of that extensive mortality was ascertained or not; but the following queries have arisen in my mind, on reading that account: Did the inhabitants of Philadelphia never eat honey before the year 1790? If they did eat honey previous to that time, Did they procure it from some other place than their own neighborhood? If not, Were they ever subject to "general distress" before that time on account of eating honey? If they were not, Was there any sudden and great increase of *Kalmia latifolia* in that vicinity? I expect this question must be answered in the negative, for that laurel is a shrub of very slow growth, and is not known to intrude on cultivated lands. Have the Philadelphians abstained from eating honey collected in their own neighborhood since that time? If they have not abstained, Have they ever had any return of such "extensive mortality" occasioned by eating honey? If they have not suffered from this cause, Has their exemption been in consequence of the general extirpation of laurel from that district? If the laurel still remains there, Why do not the bees produce poisonous honey at this day as well as in the year 1790?

Was that American Government that interfered, the Federal Government of the United States, with Washington at its head? Or, was it only the authorities of the city of Philadelphia?

As these accounts have continued till lately to be noticed by European authors, would it not be well to let the world know whether that alarm was, or was not well founded? Whether the cause of that mortality was ascertained to the satisfaction of those who live at the present day? And, whether the American Pheasant, also considered poisonous from eating laurel, and according to Nicholson excluded by proclamation, continues to be prohibited at Philadelphia in the winter season? AN ENQUIRER.

ART. CCLXXVIII.—*Abridged Translations from the Annales de L'Institute Royal Horticole de Fromont.* By the EDITOR.

In former volumes of the New-York Farmer we gave translations from the above work, and should have continued them had we regularly received the numbers.

In the first number of the Annals for 1831, is a translation, by the Chevalier Soulange Bodin, of an article on the cultivation of Mushrooms, communicated to the N. Y. Farmer, by Daniel Phelan, then gardener to Dr. Hosack.

The next article to the above, is the preservation of delicate plants against frost, by means of the temperature of deep waters. The civil engineer, Degousée, received from the Royal and Central Society of Agriculture, 1500 francs for a new instrument for boring for water. At a sitting of this Society, it was announced by the Viscount Héricart de Thusy, that, in Westphalia, water brought from a great depth, and carried into the work shops, sustained a warmth of 10 degrees, when without the apartments there were 18 degrees of cold. These thermal waters are employed in rinsing linen, the quality of which is said thus to be improved, and in paper-mills for a more complete and uniform dissolution of the materials used for paper. Marsh gardeners have used them for growing very superior cresses during all the year. It is also thought that fish kept in ponds of this water would be of a more delicate flavor, because it has been observed that fish, in the lakes of cold regions that do not freeze, are the best. This is in accordance with the principle of fattening animals with warm aliment.

Some idea may be formed of the value placed on our native forest trees from the following fact. The editor announced that he had just received a box of very fresh seeds of the Pine tree, Pinus palustris vel australis; and that the moderate price for which he could afford them, *five dollars for* 100 *seeds*, offered every encouragement to planters. It will be recollected that very considerable attention is given, in France, to the acclimation of American plants.

ART. CCLXXIX.—*Proceedings of the New-York Horticultural Society.* [Continued from page 274.]

October 18.—Mr. Hogg presented several varieties of very beautiful Dahlias—among them were superb, orange, pulchella, florabunda, a fine seedling, helianthaflora, sans rivale, anemoneflora, and spesciosissima.

CONVERSATION.—The few plants exhibited having been examined, a free conversation followed. After Mr. H. and others had given some interesting and curious particulars of the introduction of dahlias into Great-Britain, the discouragements attending the general cultivation of fine fruit and ornamental plants appeared to be the leading topic of the evening.

Dr. I., in making a professional visit to one of our

wealthy citizens, in the suburbs of the city, remarked to him that he did not appear to know the value of at least one portion of his grounds. Here, by the river side, said Dr. I., is a long ledge of solid perpendicular rock, from six to twenty feet high, and at its base a most excellent soil for grapes—a most admirable place for the finest varieties of this fruit—where they could be obtained at least a fortnight earlier than in any other situation in this vicinity. True, replied the gentleman,—but neither I nor my friends would ever taste of the grapes;—they would all be stolen, and very likely the vines torn up by the roots.

Mr. W. observed that he every year had a considerable number of plants stolen. A few days before, some unprincipled wretches entered his green house, tore out of the tub and carried off a large orange tree —that he was much annoyed, in his nursery grounds, by *young gentlemen* with their guns—the shot would come so near his head as to feel their warmth, and to touch a Saturday afternoon's beard—and that the only satisfaction received, in ordering off the intruders, would be, threats of further depredation, or a peppering of some mustard shot.

Mr. N. said, that while Mr. S. was standing on his back piazza, a stroller shot a bird from the roof of it, and would not leave the grounds until he had first obtained his lawful game.

Mr. McK: related an instance of equal daring affrontery. Several of these young pseudo-gentlemen, in passing Mr. O.'s garden, which is almost in the heart of the city, shot a robin from one of his trees—and then abused the ladies of the house for not giving them an entrance into the garden to obtain their bird.

Mr. H. gave the following among the numerous instances of the want of principle. A gentleman, accompanied by his lady, came to his garden—While she detained him in showing her the green house plants, the *gentleman* strolled about the garden, and plucked seeds from every seed plant he could find. At another time three or four very genteelly dressed ladies visited his green houses. After he had spent a good part of an hour in answering their inquiries, and in pointing out the most beautiful of his collection, one of the ladies, unobserved as she thought by him, showed the others how dexterously she could knock off the buds of one of his finest camellias.

Those of the committee who were born in Europe, said they observed, that among the invaluable blessings attending the republican institutions of this country, there were evils peculiar to them—There was an evident deficiency in a respectful deference, observable in all classes of all ages, but more particularly in youth—habituated to the full measure of freedom, there was not a proper discrimination in what are really the '*rights of man*.' This led the youth of this country to assert very broad claims, particularly to those productions whose fruit is ripened more directly by the native richness of the soil, and salubrity of the air, than by the direct aid and labor of man.

Mr. F., and others, remarked, that it was undoubtedly true that an obtrusive assumption of rights was a concomitant of our institutions, but not necessarily connected with them—an evil that could be remedied by proper education. In respect to the freedom of trespassing on the grounds, and pilfering the fruits of others, it could be accounted for, in part, by the peculiar circumstances of the country. Unlike the greater portion of the inhabitants of Europe, we have in our youthful days, been accustomed to roam over fields and in woods in quest of wild fruit and berries—and thus, when in our path, have thought it no harm to pocket a few pears and peaches, particularly if growing upon a *seedling* tree, planted perhaps by the winds or birds of the air—And even cultivated fruit, peaches for instance, were so plentiful, some twenty years ago, that it was never considered any harm to partake of the fruit of a neighbor which he was daily giving to his hogs. Still, evils that have retarded the introduction and cultivation of fine fruit, have resulted from this practice. Mr. F. stated he had repeatedly known farmers to cut down the finest fruit trees on their farms from aggravation at the loss of the fruit, or to prevent injury to their grain and grass by those who rob their trees. It is not uncommon in many sections of our country, for school boys to rob all the particularly fine fruit they can get at within miles of the school houses. The way to prevent these wanton depredations, is, to convince the trespassers that the law declares their conduct a criminal act,—subjecting them to imprisonment and fine. Let several farmers unite and prosecute—A few examples of punishment by law will cause parents to raise the standard of moral education—and thus remove the obstacles to the general diffusion and enjoyment of the finest fruit.

[For the New-York Farmer.]

ART. CCLXXX.—*Remarks on Insects Distructive to Fruit Trees, in answer to N. Darling.* By D. T.

One of the great objects of a journal devoted to Farming and Gardening, ought to be, to collect new or important facts relative to the rural economy of the district in which the paper circulates; and for its due performance, it is necessary to interest different persons, in different parts of the district, to transmit such to the editor. It has always been found difficult however, to engage a sufficient number of practical men best qualified for the task. Every conductor of a journal of this class, must sensibly feel and regret this reluctance in our cultivators to take up the pen in exchange for the implements of the profession; and even amongst those who are ready writers, and whose habitual elegance of diction ought to remove every feeling allied to diffidence, there are many whom I could name, perfectly awake to those interests, but who would not on any account commit themselves to paper. More than a year elapsed after the commencement of the New York Farmer before I was willing to write a single article, and if I refer to my numerous papers since that period, it is I hope with a due conciousness of their imperfections, and for the sole purpose of showing how difficult it is for an unpractised writer *to begin*.

It has therefore been with sincere pleasure that I have marked the *debut* of new and able correspondents in this journal; and of these, some of my friends will recollect that none enlisted my attention more than the first communication of *N. Darling*.

It is certainly desirable to publish every particular relating to the worms or insects that pray on the plant of our culture,—not only on account of learning the best mode of directing our attacks, but also to rouse the

cultivator to a sense of his danger, lest his enemies without being pointed out should escape his attention. I therefore forwarded the account of the *Chrysomela vitivora;* and afterwards expressed my suspicions, that a small caterpillar which devoured the leaves of the vine, was the larva of this troublesome bug. If this suggestion should prove to be the fact, then we shall have a double interest in its destruction; for the ravages of the parent are worse than those of the larva, as only a few of the former are enough to destroy all the fruit buds of a common sized vine.

The style in which that suggestion was received by *N. Darling*, was not calculated to encourage others to venture on paper. If I have mistaken frankness of manners for a want of courtesy, the error has been of no great magnitude; and a very slender apology will be sufficient for the course that I pursued in my reply.

When he says that the plans proposed by W. Prince, Dr. Thatcher and myself have failed to guard his trees against the Curculio, I receive the statement with due respect, but when on this basis he erects a general proposition that such plans are ineffectual in a country full of orchards, I conclude it is not warranted by the premises. I know not indeed whether he means to be understood literally in his expressions of "a country full of orchards." If he does, then I frankly admit that I have not seen such a country, but if he only means that orchards are numerous and extensive, yet occupying *only* a considerable part of the district, then I wish him to remember that W. Prince resides, and Dr. Tilton resided (for I believe he has been deceased some years) in old and populous parts of the country where fruit trees were abundant. It was in these situations that their experiments were successfully made; and from these situations they informed their fellow citizens that a pavement was an effectual protection.

In regard either to this plan, or to that proposed by Dr. Thatcher, I cannot perceive that a country full of orchards forms any objection. I cannot discover any greater difficulty in protecting a tree against them, if surrounded by ten thousand other trees, than if it were only surrounded by ten trees. If there are more insects in the neighborhood, so there are more trees for those which are disturbed to retire to, and more fruit to engage their attention. Fruit trees in abundance seem rather to be a favorable circumstance. If two infested plum trees stand near together, at a great distance from any others, and the Curculios be expelled from *one* tree, the *other* tree will be doubly infested; and being greatly overstocked, the insects will be constantly prompted to return; but if the tree from which they are induced to retire, either by *discouragement* or *fear*, be surrounded by ten other trees, it is plain that each tree would only receive one tenth in addition to its average stock of insects; and these insects would have only one tenth of the inducement to return.

I have never tried paving under trees, but I am inclined to think that in the same place, a pavement might prove a secure protection in some years, in full accordance with Tilton's and Prince's accounts; and yet be ineffectual in other years, agreeably to the statement of N. Darling. In 1817, at this place all our stone fruit and apples were distroyed by frost on the morning of the first day of summer; and consequently no young Curculios were produced. What became of the old ones, I know not; but in the succeeding year we had plums in profusion; and I believe some good effects from that distructive frost were felt for a year or two longer. While the numbers of this insect were few in proportion to the fruit that hung before them, it is probable that their instinctive wisdom would not slumber, but the best situations for the future retreat and welfare of their young would be chosen. On the contrary, when the numbers of the Curculio are disproportionately great in reference to the quantity of fruit, the females may prefer a bad situation for their eggs, to none at all; and I think I am warranted in believing this to be the case by their behaviour in the present season. Their numbers have been unusually great, and the young plums unusually scarce; and in consequence most of our peaches, which they commonly shun, have been distroyed by them.

From these views it is apparent that to be successful with Dr. Thatcher's plan or mine, greater exertions must be made in some years than in others; but no person acquainted with the timid disposition of the Curculio, ought to say that these are ineffectual guards. No such person will believe, for instance, that a plum tree would not be secure from their attacks, were it constantly surrounded and shaken by several persons from the time of its blossoms, till the fruit was mature. This, of course, would be an extreme case, which N. Darling (I presume) had not contemplated; but it will show that these plans can only be ineffectual through a want of perseverance.

I may be told that the labour may cost more than the fruit is worth. This would only prove the plan *unproffitable*, but not *impracticable* or *ineffectual*. Such cases indeed may occur, while in a great majority of instances, a very moderate share of attention will suffice. In the present season, only two plum trees of all that belong to one of my neighbours, bore fruit. One of these which appeared entirely free from the Curculio, stood almost in the path to the well; and the appearance only of some of the family in passing, was an effectual protection. The fruit on N. Darling's tree near his well, fared differently, which perhaps may be ascribed to the greater number of insects on the adjoining trees. The boldness of many kinds of animals, increases with their numbers.

If two fruit gardens be infested by the same determinate number of Curculios,—and if the labour to distroy them on my plan, be precisely the same whether applied sooner or later,---it is certain that different persons after completing this labour, may experience very different results, and arrive at very different conclusions in regard to its utility. He who carefully watched the first appearance of these insects, and distroyed them before they had time to oviposit, would make a very different report from that man who delayed to destroy them till the mischief was done.

Other views of this subject might be presented, but I mean not to extend these remarks. N. Darling may be interested to learn that the worms which I confined "with orange colored heads," left the moist earth, and encased themselves in a web under the cover of the tumbler. Soon after one of them came forth a dark grey miller; and I conclude there was no Curculio amongst them. We are therefore indebted to him for the interesting discovery that the larvæ of *several* insects feed on our fruits; and it is now rendered at least probable that Dr. Tilton ascribed too much of this mischief to the Curculio.

D. T.

[For the New-York Farmer.]

ART. CCLXXXI.—*Different Varieties of Poultry.*
By D. F. A.

Mr. FLEET,—Encouraged by your repeated invitations to your subscribers to contribute to the general stock of information, by stating their practical knowledge of rural economy—I submit to you the following remarks, if they be of sufficient worth to fill a vacant corner in your very useful repository. Perhaps it may be necessary to state, that I have been for many years intimately acquainted with the art and mystery of breeding and rearing of Game fowls, as well as most other varieties, and at some periods in very large quantities, and as each variety has its peculiar qualities, so some are better calculated for particular situations and purposes than others. This truism would seem absurd here, did I not know that generally, farmers and others who keep fowls, at first gain their stock by a purchase of some half a dozen hens and a cock at market, without any selection, or choice of more importance than color. At some farms I have visited, so little attention has been paid to this object that a sufficient number of eggs and poultry for home consumption have not been raised: now as the most inferior fowl requires the same quantity and quality of food as the superior—I cannot see why our markets may not as well be supplied with varieties of superior breeds, as well as with the present diminutive and unprofitable class. First, then to those who rear them for the table, I would recommend the large varieties of the Canton or Malay breed; they attain to a great size, frequently weighing 10 or 12 lbs., the former are generally the largest, and when true bred, are yellow stiriated with brown. They are but indifferent as layers, and set unsteady. These gigantic fowls are sold as high as $2 the pair. As layers, I know none equal to the Poland fowls; they are excellent, and are sometimes called in Europe everlasting layers. They are very scarce here, and will readily fetch $2 a pair in the N. Y. Markets. They are tolerably hardy, very peaceable, and their plumage must be a shining black with a large white top-knot and a king David's crown on the head—There is a variety perfectly white, but I do not think it the true breed, or equally good. The Darking fowl is an imported English breed, and in size nearly equals the Malay; they are good layers and good nurses, they have often five toes on each foot: their original plumage is clear white, capacious body and short legs. Those of this species are usually prefered for capons. The Dominique or common dunghill fowl, from its innumerable crosses, cannot be depended upon; some will be excellent layers, others useless either for the nest or table. They are the smallest variety and are to be seen every where and of every color. The Bantam, an Indian variety, extremely small, valued as a toy; they lay well, their flesh is extremely delicate, and from their small size may personate a chicken, when others are not to be procured for the table; they are of all colors, but those the most variegated, or perfectly white are the most esteemed; the smooth-legg'd are prefferable; they are less liable to colds from the wet and mud continually clogging in the feathers around their feet; while setting also, the feather-legg'd are apt to draw out the eggs with them on leaving their nest. The Game Fowls I purposely omit; though extremely beautiful they are not to be recommended; if true bred, their quarelsome disposition counterbalances every thing. I have had whole broods stone blind; they commence fighting almost as soon as out of the shell: mine from their good feeding and hot nature have laid all through the winter. A good supply of clean water is absolutely necessary, and barley or cracked corn mixed with one quarter sea sand, is their best food: dry and warm shelter in winter, if you wish for eggs either in summer or winter. Ten or twelve hens may be allowed to one rooster.

I may offer you a drawing of some variety of fancy pigeons and rabbits, with a few remarks when I have sufficient leisure to complete them.

New-Jersey, Oct. 1831. D. F. A.

Remarks.—We hope our correspondent will furnish us with the further results of his observrtions and experiments on the above subject; one on which there is much deficiency of information.

ART. CCLXXXII.—*Acclimating Plants by means of Evergreens.*

[The following letter was communicated to the N. England Farmer by Gen. Dearborn, the President of the Mass. Hort. Society. It affords an instance of the discovery of a law of nature in the general pursuit of the objects of culture.—*N. Y. Farmer.*]

Roxbury, Oct. 6, 1831.

Hon. H. A. S. DEARBORN.

Dear Sir—I received your present of plants. The Pinus pinea is no stranger to me, and yet I am happy to be able to make a *second* trial of them. I had some seeds so long ago as in the life time of Professor Peck. I raised two plants, and kept them in my green house three years. I then planted them out under shelter of other pines. They endured the first winter well. The second was fatal to them. But I have acquired much experience since. I think I could preserve them *now*. I should keep them in winter in my green house, and plant them out every year early in April. When they had attained some solidity of wood, I should leave them out, *mulching* their roots, and surrounding their tops with branches of pines, and other evergreens. This is a new European discovery, which I have tested and found to be wonderfully efficacious. In two or three years this pine will be as hardy as any of our own. There are facts on this subject which have passed under my own eye, which convince me that we may naturalize the plants of the Grecian Archipelago, of Japan, and Northern China, by the aid of evergreens. It is a much better screen than wooden or other artificial covers.

I here recommend to those who have the Chinese class of Roses, the varieties of which are so numerous, or who have the Rhododendron ponticum, or any other semi-hardy plants, to try the effect of surrounding them, thickly, with branches of any of the pine family. I kept a Rhododendron ponticum, in perfect vigor, by protecting it by pine branches. So I did the fig, in a building, without fire heat. There is an indefinable power in the living principle of evergreen plants, the same, which protects themselves from the frost of the severest winters, and which equally enables them to afford the same protection to other plants. The philosophy of it is not exactly definable, but the *fact is so*, and it is with *the fact*, that all modern ra-

tional philosophy has any concern, or condescends to take any notice. We do not now trouble ourselves with what *ought* to be the effects of any experiment, but what are its effects on *trial.*

I am, dear sir, respectfully, yours,

J. Lowell.

Art. CCLXXXIII.—*Proceedings of the Rensselaer County Horticultural Society.*

The Ninth Exhibition of the Rensselaer County Horticultural Society took place at the Rensselaer House, October 11th.

The Floral display was very superior for the season —Fruits and Vegetables not as abundant as was to be expected; this defect must be attributed to the unfavorableness of the weather.

Madam Parmentier of Brooklyn, L. I., presented a beautiful Bananna leaf, 4 feet long and 2 feet wide; also a fine Jalouse Pear.

John D. Dickinson, Esq., Troy, several beautiful cut flowers.

Alexander Walsh, Lansingburgh, 2 fine Cauliflowers; Broad Beans, as fine as they were to be found last June; Lima Beans; Yellott Asparagus; Pole Beans, a fleshy pod of about 8 inches long, tender and rich; the London Horticultural Bean; these two latter are new varieties and well worthy of general cultivation; a branch of the Fig-tree with second growth fruit; 3 beautiful ripe Oranges; perfectly fair and ripe Cherries; Filberts; 3 of the Pear Jargonelle, Golden Rennet and Monk's Codlin Apples; double and semidouble Tuberose; Phlomis Lychnitis; Bigonia; Air Plant *(Epidendrum,)* Irish Heath, with many more foreign and indigenous flowers and shrubs.

Horatio Gates Spafford, Lansingburgh, several very superior South American Squashes; Hamburgh Grapes.

Amos Briggs, Schagticoke, some fine Apple and Pear Quinces.

David C. Norton, Lansingburgh, a superior specimen of the winter Bon crétien Pear; Lemon Quince; and fine winter Squash.

Art. CCLXXXIV.—*Soil and Productions of Missouri.*

Missouri is the second state in the Union in point of size, containing according to Mr. Tanner, 65,500 square miles. Virginia alone is before it in extent of territory. The state is destined to be one of the most powerful in the Valley of the Mississippi. It possesses great natural advantages. There is a vast extent of very fertile soil; although there is also much that is of a contrary character. The alluvions of this state are of astonishing fertility. In that part of the state which lies south of the Missouri river, there is much level land, but still a very large proportion is hilly, almost, in places, approaching to mountains. The Ozark or Masserne mountains really commence in the neighborhood of St. Genevieve, under the name of the "St. Genevieve hills," and thence run to the south east, uniting with other ranges which rise on the Missouri river. This hilly region constitutes the great mineral section of the state. North of the Missouri river, the country is of a diversified character; much of it however is hilly, but there is none which may be termed mountainous.

The surface of Missouri, in its natural state, is covered with a most dense forest, of poplar, oak, walnut, sycamore, elm, sugar maple, ash, hackberry, hickory, peccan, &c. On the Gasconade is an abundance of pine, from whence St. Louis is supplied with that valuable timber. The cultivated productions of this state are wheat and corn, which are staples; rye, oats, barley, &c. grow well; hemp is somewhat cultivated. Cotton is cultivated in a few southern counties; tobacco is also cultivated to some extent, and increasing. Apples, peaches, pears, &c. grow well. In short such is the soil and such the climate, that Missouri will yield in abundance every valuable production of the northern and middle, and some of those of the southern states. The same may be asserted respecting Illinois, which is separated from this state only by the Mississippi river.—*New-York Observer.*

Art. CCLXXXV.—*Miscellaneous, Original, and Selected.*

Mr. Mackay's Breed of Swine.—It will be noticed in this day's paper, that Capt. Mackay has again taken a premium on his swine at Concord. We have had the curiosity to look over the files of the New-England Farmer, and find that he has taken $168 within the last six years, at the Shows in Brighton and Concord, in premiums on his invaluable breed of Swine. He has been indefatigable in procuring the finest animals from Europe, and by judicious crossing has produced a breed that we think are unrivalled for smallness of bone, fine flesh, lively condition, and kindly disposed to fatten easily and early.—*N. E. Farmer.*

[Some farmers would object to agricultural societies, on the ground that one wealthy farmer obtained so large amount in premiums—not considering that the whole country may yet be benefited by the laudable exertions of Capt. Mackay.—*Ed. N. Y. Farmer.*]

Sheep killed by Wild Cherries.—[In addition to the information which it contains, we give the following as an instance of the benefit of taking an Agricultural paper.—*Ed. N. Y. Farmer.*]

Mr. Fessenden—In your last paper I observed a notice of *cattle and sheep* being poisoned by eating *wild cherry* leaves. This is the first time I have ever heard of such a thing. I own a farm in New-Hampshire on which I have a considerable flock of valuable sheep, and on the same farm there are *very many* of the *small wild* red and black cherry tree stalks. My farmer is a very intelligent observing man, and I have never heard him mention the idea of the sheep or lambs eating the cherry leaves, but it is a fact that for several years I have lost very many sheep and particularly lambs before they were one year old, from some cause for which we could not account. It very probably may be from this cause. Your correspondent, Mr. Tulty, at Saybrook, and any others knowing the facts, would greatly oblige me, and no doubt many other sheep owners, by describing the appearances and marks of the effects produced, and enable us to judge, if this is the cause of our loss.

Yours, very truly, J. P.

Bailey's Survey of Durham.—Mr. Fleet: It appears by Bailey's Survey of Durham, that at Collings' sale, in 1810, seventeen cows were sold for 2,802 pounds sterling; eleven bulls for 2,361 pounds; twenty-eight animals thus produced $22,948 67. That Major Rudd paid 400 guineas for Lady, of 9 years; for Lilly 400 guineas; for Peeress 170 guineas; for Petrach 375 guineas. That Messrs. Wetherell & Co. paid for Comet, of 6 years, 1000 guineas. Mr. Champion and Col. Mellish have since paid 450 guineas for the services of Charles during two years. A regular record is kept—the Herd Book---of the pedigrees of the animals of pure blood. Although one hundred and forty breeders---130 bulls and nearly 3000 heifers and cows are enumerated in this volume, it will be seen, by Major Rudd's letter, that their cost continues to be as high as it was 17 years since.

Improved Breed of Cattle.---Mr. Fleet: How long must it yet be, before our *American Farmers* will get their eyes open to see what is for their best interest? Is it not obvious to all, who will deliberately view the matter in its true light, that the *Breeding of Cattle* is one of the most profitable, as well as most pleasant kinds of husbandry; and that farmers cannot invest their money so advantageously in any other way?

If what is said of the Improved Durham Short Horns be true—(and there is no reason to doubt what is said,)---If 28 head of cattle sold in England so recently for 22,948 dollars, and if (as was the case at Col. Powel's sale last year in Pennsylvania) calves of the same improved breed brought from 200 to 300 dollars, and cows and bulls in the same ratio, why is it that our Farmers enter into this business so tardily?

B.

Gardeners' Work for November.—Cover your artichokes with straw, leaves or dry litter: cut down your asparagus close to the ground, and clear and manure the beds: those of your Brocoli that are not likely to produce heads, take up, and pack them close together, and cover the roots and stems with earth: cover your corn salad with straw: take up some of your parsley and plant them in a frame or light cellar—the leaves will keep green a long while—cover the remainder with straw where they grew: sow the seeds of patience dock: draw around the roots of rhubarb a little earth and cover them with litter.

Florists' Work for November.—Plant your hardy kinds of bulbous and turberose roots, from two to four inches deep: take up your tender plants, preserving as much of the soil as possible, and keeping them from much exposure to the sun for a few days, but not from light. The more uniform the temperature, the more healthy will be the plants, and the more complete and lasting the infloresence. It is probable, however, that there should be a very moderate increase of temperature in the first formation and enlargement of the bud, but not after the flower is fully developed.

Farmers' Work for November.—See that colts and young cattle are not exposed in open fields to storms. At this season of the year there is a very great difference in the heat of day and cold of night; therefore take care that your horses and cattle do not suffer. Feed them in proportion as the pasture decreases. Take care to get in your corn stalks in good order. Furnish yourself with one of the best straw-cutters. Keep your horses in fine condition with cut straw and bran, fermented potatoes and bran properly seasoned with salt, and top stalks—and then sell the greater part of your oats, if they bear a good price. Give the same food to your cows, substituting the bottom for the top stalks. If you throw your potatoe tops in the center of your yard where there is standing water, see that the cattle do not drink of it, as it is supposed to be poisonous to them. If your sheep or cattle are sick at this season of the year, examine the weeds and bushes about the hedges and fences around the field, and see if there be not some injurious plants. In this month they will eat of almost every plant. During the long evenings of this month take an account of your crops, and write out, in a legible hand, the results of your observations and experiments, and send them to the Editor of the New-York Farmer.

Whiskey Obtained in Baking Bread.---A machine has been invented in England, by which the vapor arising from the dough of bread while baking is condensed, and forms whiskey. It is found by experiments on a large scale, in London, that a loaf of 4 lbs. will yield six ounces of liquor, containing 20 per cent. of proof spirit. This improvement has enabled the London bakers to sell the quartern loaf one penny cheaper than when baked in the old method.

On the supposition that 300,000 pounds of bread is daily consumed in New-York, there would be about 3,500 gallons of liquid, or 700 of proof spirit obtained in a day; amounting to upwards of 7000 barrels of the latter in a year.

Hay---The following item from the Southern Agriculturist of March last, may account in part for the sufferings attributed to the Tariff.—*Ed.*

"This necessary article has been readily sold in our market, at the enormous price of *two dollars and a half*, and some even as high as *three dollars* per cwt. the usual price is from 75 cents to $1, and this advance is owing to the impossibility of obtaining supplies from the North during the late inclement season,—the quantity raised in the State, being wholly inadequate to supply our wants; in fact, very little is ever brought into our city, and that which is, generally being inferior, is sold for a less price. Our farmers and planters should look to this, for it is not owing to any other cause than negligence on our part, that we have so little hay, and that of inferior quality. Our crab and crow foot grass, will make as fine as any other known, and these are produced with such ease, and in such quantities, as to be undervalued by us. We would be glad if some of our correspondents would give some information on this subject."

New-York Cattle Market, Monday, October 24.—Between 1300 and 1400 head; 400 unsold; prices $4 50 to $6 75—averaging $5 75. Sales slow on account of weather.

Sheep and Lambs—about 3000—prices about the same as last week, but sales slow.

Cows and Calves sell well.

Swine—sales not brisk, prices 4½; for stores 3½ cts.

Hay—63 to 75 cents per hundred. [Reported for the New-York Farmer, by D. Drew.]

Produce Market.—Flour has fallen in England, but Ashes advanced. Grain Market, in this city, not brisk—Lumber sells well. Ample stock of wool on hand, but considerable sales made.

[For the New-York Farmer.]

ART. CCLXXXVI.—*The Country Farmer.*—No. VII.—*Education, continued—with rather an awkward attempt at Philosophizing.*

Mr. FLEET,—Practice, it is said, makes perfect. How I shall succeed, in philosophizing on paper, is very questionable, and so I set out with the above caption. The true business of Education, should be, I think, to form the character, diversified, of course, according to the various circumstances of individual cases, in which learning should be considered a part, not the whole. In this view of the subject, we may duly estimate the importance of sound good sense, in those employed as Teachers, not merely in literature, but in every thing connected with the formation of character, in the boy, or girl. Work, then, and familiarity with work, becomes a very important part of Education, not only for those who are to get a living by honest industry, in some way, but as a means of bringing into actual developement, by use, those faculties, and powers, and energies, of body and mind, which are designed for future usefulness in the various duties and functions of life. He who can do nothing, is good for nothing, however much learning he may have. A '*very learned schoolmaster*,' therefore, full of the gibberish of the 'higher schools,' as they are called, his latin, and 'unknown tongue' wisdom, should never be entrusted with the Education of Farmers' children. There is contagion in his example. With such men, learning is every thing, and that very every thing is mere literature. With a vacant mind, but a stuffed memory, such men are full of learned nonsense, but have no actual knowledge of any of the business of life. Their day, with that of 'legitimacy,' and the 'divine rights' of hereditary usurpers, has gone by: the Palace of Power, is now the Temple of Industry. *Men* must *do* something, as well as *know* something, and not merely be *books*, or *guide-posts!* The drones of literature, the very soft heads of the underlings that come from College into the 'learned professions,' and from these into our Common Schools, as Teachers, are exactly the wrong sort of men for that office, in all that concerns the well-being of the Farming interest.

How, then, are our Farming neighborhood Common Schools, which are very numerous, to be supplied with Teachers? I answer, select from among the Farmers' sons, of the same district, some young man of good sense, a good disposition, distinguished for his good qualities, and love of learning, and let him be your winter schoolmaster. He is a Common School man, and a common sense man, to whom one or two winters of experience, in teaching, may be of no small use, much to the satisfaction of the whole district.—Try it once, in this way, and you will probably discover that the art of Teaching consists principally *in* the art of governing, and this in gaining the attention, by means of the affections, and by having something to impart, as food for the mind. I have tried this plan, both as a Teacher, as a Trustee of schools, and in sending to them, as a parent, and with the most perfectly convincing evidence of success.

Much has been said, within a few years, about Educating young men, as Teachers of Common Schools, and plans have been suggested for Schools designed solely for this purpose. It has been partially tried, and those very young men make it a road to other pursuits, and thus leave Common Schools to take care of themselves. We do not want men devoted to this business Wherever there is a school district, and a school house, and school, there are also scholars, and of suitable age, and qualifications, to serve in turn in the office of Teacher; and so it will always be, unless the British '*Rotten Borough*' system, shall come into practice in our school districts; of which there is not much danger. The Teachers of Common Schools, should have received their learning in Common Schools, and by pursuing this plan, for a few years, more will have been effected towards 'raising their character,' of which much has been lately said, than by even a College, for supplying Teachers, or an Academy, for the same purpose, in every county of the state. This is my opinion, Mr. Editor, and the result of as much experience as falls to the lot of most men, with ample opportunities for observation, as well in reading men, and things,—the schools, of all orders, and those who direct their operations,—as in reading books, and ruminating a little, occasionally. But of all mistakes, so common, that of employing young men who are fitting for College, to act as Teachers, in Common Schools, is certainly one of the most pernicious, as respects the interests of those who patronize such schools. I would rather take a Teacher, by casting lots, from the boys of the district, because his whole mind, whatever it might be, would all be in the school, and his efforts would be directed to the common good. He must be a rare bird, that has spare food for others, while on the wing, to catch flies for his own journey, a bird of passage, only, whose example gives a wrong direction to the minds of Farmers' sons.

Some people, not absolutely devoid of good sense, however much they may seem to lack, in some of their conclusions, appear to act as if they thought affability, and good breeding, belonged only to fine clothes! They will be very polite, when 'dressed up,' as they call it, but most slovenly, in their manners, at all other times. This is what I call a false exterior, an *assumed character, in dress*, but the real, in *dishabille*, undress, common dress, your every-day apparel. That man, or that boy, or woman, or girl, who is not such, independently of fine clothes, is not fit to be a Farmer, or a Farmer's son, or wife, or daughter. The consciousness of self respect, must rest on something very different from mere dress, or even personal appearance, as to being finely or coarsely clad, fashionably or unfashionably, in full dress for a ball room, or in the garb of business. He who is suitably clad, for his avocation, is most honorably clad, and need not blush, at the presence of others, any more than the bee should, when seen by a butterfly.

Our cousins, in town, are town-people, citizens,—citizens of some note, in a city of some note,—and we are country Farmers, plain, homespun folks, as Farmers should be. When they visit us, it is all 'cousin this one,' and 'cousin that one,' hail-fellows-well-met,—and so, indeed, it is, when we visit them, to do them justice,—for they really are good kind of folks,—and yet—I must speak plainly—they hardly ever 'cousin' us, in town, before some of their most wealthy and genteel acquaintances! Unless, indeed, as sometimes happens, the girls have all just been prinketed up, in city mode, when they, perchance, may have the *honor* of such presentation! Now, sir, for my philosophizing. The true philosophy, in my opinion, is, for Farmers to be Farmers, at home and

abroad, and always to act like themselves, and dress in their own way. Let town people continue to call us 'rusticated,' while we call them prinketed, and there let these matters rest, cousin or no cousin. If country Farmers would all come to these conclusions, and live up to them, we should hear no more about the blushing of the working bees, caught in their working dress by the eyes of the butterfly, sporting away its brief hours of life in a more showy raiment. We could then visit our town acquaintances, without new wardrobes, and return with more money than band-boxes, so as to keep our Farms clear of mortgages, and the marketing produce would become a very pleasant, instead of a painful business. I know many a Farmer, who dreads going to town, even with the produce of his Farm, and no mean quantity, as he would going to a horse-race, because of the many attendants, and so many wants. If these people could see the fashions only to laugh at them, as town people do ours, real Farmer fashions, their occasional visits to town would do them no harm. But the mischief is, that some people want to be what they are not, or to appear to be, and hence comes the misery. The 'imports' of fashion are never entitled to 'drawback,' for there are no exports. With the fashion, goes also the pride, like the down of the thistle, always carrying the seed with it. *Sept.* 5, 1831.

[For the New-York Farmer.]

ART. CCLXXXVII.---*Gifts, to Encourage Cultivation.*

On this subject, Mr. Editor, I have lately, say within the last six or seven years, been gaining so much *new information, new knowledge*, I may call it, that I propose to make it a topic for your very useful paper, in a hope, perhaps a vain one, to make my own experience useful to others. It has always seemed to me very natural, and very proper, that when we possess a good thing, such as choice fruit, we should feel a desire to have our neighbors possessed of as good, particularly when they all unite in admiring it, and acknowledging its superiority, perhaps its unrivalled excellence. While the Garden, by a little care, a little pleasing attention, bountifully yields such good things, and every body loves, and praises them, it never once occurred to me to think of *selling* the *trees*, or the *vines*, to my neighbors, in order that they might have a like abundance: I *gave them away*, most liberally, even *adding to the gift that of my own labor*, in setting anew, in their own ground. Such has been my practice, through the above period of my experience, and until now, with the exception of the present season, for reasons now to be adduced, my new knowledge, Mr. Editor.

You must know, sir, that for 30 years, I have been quite an enthusiast in relation to the culture of the Vine, both as to the facility with which it might be cultivated, and as to the effects of this culture, in eradicating the evils of intemperance. On this subject, I have all along said much, maintaining that the right way to destroy this enormous love of intoxicating drinks, was, to cultivate a taste for abundance of fine fruit, and the drink of Wine, as the common beverage of the country, wine made by the people, not imported, medicated stuff. He who has a love of fine fruit, is, for the time, more than half weaned from strong, intoxicating drinks, doses of alcohol. Wine drinkers, in all countries where plenty of good wine is made, and drank, by the common people, are comparatively temperate, and also healthy. Such are the facts of the case, incontrovertibly. The love of perfectly ripe fruit, is natural to all men: that of strong drink, is natural to no one, but is an acquired habit, a taste altogether unnatural. Hence it is, as remarked before, that he who loves, with the relish and the appetite of youth, rich and delicious fruit, is, for the time, restored to natural appetites, and weaned from his perverted, acquired love of whiskey, rum, gin or brandy. Such was, and is, the course of my argument, and the ground of the above stated enthusiasm. To carry it out, in action, I have often told people, that, no man, around me, should, if possible for me to prevent it, be without his Grape Vine. So then, I have *given* to all that would *take*, and have *sent* to hundreds of people in the hope that they would *accept, and take care of the gift.*

I find, however, not only that what men *pay something for*, is better attended to, better esteemed, and regarded as more valuable, but that they absolutely will not, with few exceptions, bestow upon a gift, in such a thing as a vine or a tree, the attention that is necessary to do it justice. Fed with my fruit, for years, and for years after having vines given to them, of the same kind, they still come to be fed, and to admire, as before, leaving their own vines overrun with weeds, unframed, untrained, calculating on paying me with praise of the superiority of *my* fruit, compared with *theirs!* This is bad enough, in all conscience, because base neglect, and wicked injustice, giving a thing a bad name, thus adding insult to injury, as often happens in other matters, and much in the same way. But what most vexes me, is, that *gratuitous information*, derived from a successful experience of near thirty years, *because given*, is treated in the same way as the vine itself, the thing given, and the necessary directions for its treatment!

To make this a clear, plain case, I have a neighbor, who, some few years since, suddenly became a very rich man, rising on the wings of the wind of party favor. This man,—and to do him justice, this perfectly common sense man,—who never was guilty of the folly of giving away any thing,—speaks, and his voice is an oracle! Even my neighbors, when they come to eat my fruit, retail to me the wisdom of Sir Oracle, and point out every deviation of my mode, from that laid down by him, as absolute and unquestionable faults. They all know that this man's experience is much younger than mine, and I have never been able to discover that he is thought to be a man of superior understanding: but then, he *sells* every thing, and I *give* away. Besides, riches and popularity go together, like wealth and wisdom, in the estimation of some men. At any rate, nobody gets a tree, or a vine, or even a strawberry root, from Sir Oracle, without paying for it; and so nobody neglects what is bought, or the directions. Admonished by this, and by all these matters, I have come to the conclusion, That the way to manage any kind of culture, is not to give away the thing which is to be cultivated, but to sell it, with your instructions, so as to make men take care of the one and the other. So, for this year, Mr. Editor, I am beginning to be wise. Instead of feeding others with my choice fruits, I tell my neighbors, either, to

keep their praise of its excellence, go and give it to Sir Oracle, in *pay for his*, or go without, or raise for themselves, just as they please. They who will not work, should not eat, and, least of all, eat of the very best. This is often effected, however, but the result discourages honest industry. The best way, I am now perfectly satisfied, to encourage any useful culture, whether of the fruits of the earth, or the mind, is first to demonstrate its practicability, and profit, and then to make it profitable, by selling, rather than giving away. NEW-JERSEY.

October 15.

[For the New-York Farmer.]

ART. CCLXXXVIII.—*Use of the Tomatoe, in quickening the action of the Abdominal Viscera.*

MR. FLEET,—Like most persons of studious or sedentary habits, I often find myself more or less incommoded, and my health impaired, by inaction of the stomach and bowels, so as to be under the necessity of resorting to medicine, principally cathartics. In order to enable your readers perfectly to appreciate what I am about to say of a remedy, this state of the bowels is always in some degree accompanied with a sense of straitness of the chest, and besides a general uneasiness, and lassitude, yet with head ache, and some degree of pain in the region of the liver. It seems to me a recurrence of those symptoms that accompany attacks of what has been called, by my physicians, a liver complaint, to which I have been a good deal subject. The appetite, instead of being keen, becomes imperfect, with a peculiar taste of the mouth, as if something was wanting, and in the functions of digestion, to constitute perfect health, for which cathartics are only a temporary relief, not a remedy.

The common *Tomatoe*, used in making gravy, at once removes this taste of the mouth; in a little time quickens the action of the liver, and of the bowels, and removes all the above noticed symptoms and feelings. I regard it as an invaluable article of diet, or, if you please, as of medicine, or medical dietetics. With me, it has always been an object of solicitude, to find out such diet, as should supersede the necessity of medicine. Except in pickle, which I cannot use, I eat the Tomatoe in every imaginable mode of dressing, and find it perfectly adapted to my wants. In the hope of being of some use to others, these facts are stated. The Tomatoe, is of great use to me. It is raised with less trouble than any other vegetable of which I have any knowledge. It was first planted six years ago, drops its own seed into the ground, and has produced bushels, every year since, with no other trouble than once digging the same ground, in spring, and one or two hoeings, on a spot of perhaps six feet square. It makes a good pickle, and is raised with one hundredth part the care, labor, and trouble, of an equal quantity of cucumbers.

But, one other object, remains to be stated. I incline to the opinion, though without having yet fully tried it, that the Tomatoe may be made into a rich sauce, for meat, and be kept through the year, or from season to season of the fruit.* The gravy, I know, even in the hottest weather of summer, will keep, perfectly unchanged, for several days, in a common open dish, in a pantry: and this I know, because, as my cook does not like the article, I have contrived to keep it over, when she neglects my directions. If properly prepared, and bottled, and well corked, it would certainly keep good, in an ice house, and perhaps in a common cellar, or under water, of a low and uniform temperature. At any rate, if found to be as useful to others, as it is to me, it will be quite desirable to find out how it may be best preserved, for use. As a pickle, kept in brine, or vinegar, I could not use it, and I am inclined to think its good qualities would be much diminished, for any one, by this mode of preservation. It seems to me, that, of all the articles of diet, or medicine, that have come to my knowledge, the Tomatoe acts most directly upon the liver, and thus in the bile. Publish this, if you please, and let others try it, and make their own observations. I know that several persons, of my acquaintance, have derived like benefits from the use of it.

Constitutionally predisposed to a torpor of the liver, and the abdominal viscera, I have, through life, been subject to the necessity of using cathartics, until having discovered the good effects of the Tomatoe. In all cases, except in such as above described, my flow of animal spirits has always been uniform, rather abundant than otherwise, sustaining severe mental effort, even to 12 and 16 hours of each 24, for weeks in succession, always without other stimuli than ordinary food and drink. Wine never exhilirates, except as it increases my general health; and ardent spirits alway depresses the tone of my mind. How far these may be regarded as peculiarities, I know not, but think proper to state them, for the sake of a clear understanding, and in a sincere desire to be useful to others. I have never known the effect, even in the slightest degree, of any sort of intoxicating drinks.—Health exilarates, and ailments depress my spirits. When afflicted with inaction of the bowels, head-ache, a bad taste of the mouth, straitness of the chest, and a dull and painful heaviness of the region of the liver, the whole of these symptoms are removed by Tomatoe sauce, and the mind, in the course of some few hours, is put into perfect tone, like a new violin.—These facts certainly merit a narration, and I can but hope they may be of use to many persons. The true plan of life, for men of mind, and especially for men of study, and much mental effort, is, so to live, as to have our food supply all that is necessary of medicine. A wise man, will soon learn to relish only what agrees with his temperament, and reject all else, in food and drink. To which I will only add, that, much employment of the mind, particularly in men of slow habits of body, slow actions of the bowels, calls for a larger proportion, than they generally use, if temperate men, of liquid food, or drink. H. G. S.

October 23, 1831.

* French cooks have a method of preserving them in the form of cakes—first having cut them into small pieces, or ground into powder.—*Ed.*

[For the New-York Farmer.]

ART. CCLXXXIX.—*Working Oxen and Cows.*

You have lately had several good articles, Mr. Fleet, on Farm Stock, a subject of much importance to far-

mers, and deserving of more general attention, particularly in this state. On a late visit to Boston, riding rapidly over the country in the public coaches, I saw no one thing that attracted more of my attention, than the superior quality of their Working Oxen, say through all the eastern part of Massachusetts. Their cows also, appeared greatly superior to the common ones of this state, and I regretted not having opportunity to make such inquiries as I wished to make. Before this visit, I had no idea of the comparative inferiority of our cattle, and would have asked a great many questions. Their oxen, were not only very beautiful, but they had a gait that perfectly astonished me, or rather a quickness of motion, on the road, at the plough, and in all the operations of husbandry. I saw at some of the public houses, that the cows not only gave good milk, but a very large quantity, considering its richness; and am inclined to think you would do well to call the attention of your readers, at least in this state, to the cattle of that country. Of what stock, or breed, are they? At what prices can they be had, say cows, and some bulls, and oxen? They are worth 50 per cent more than ours, as cows, and oxen, and we ought to supply ourselves with the stock. They are small boned cattle, with clean limbs, beautifully proportioned bodies, slim, tapering, and smooth horns, small head and neck, and remarkably bright eyes. I did not happen to observe a single bull, and of course I speak of the cows and oxen.

Permit me to express a wish, that some person, in that region, would send you for publication, a statement of their stock of cattle, embracing the information that may be most likely to engage the attention of the farmers of New York. The quick step, and the perfect docility of their oxen, would help to induce our Farmers to employ more of them, in their farm work, a very desirable change. An ox team, such as was seen almost every hour, in the vicinity of Boston, if driven along the highway, in any part of this state, among the farmers, would attract general attention. Lame, and rheumatic, and old as I am, I would go some miles to see it. Think as we may, of 'Boston notions,' this is one, at least, well worth the attention of our farmers, if not of our speculators.

Oct. 22. 1831. A New York Farmer.

[For the New-York Farmer.]

Art. CCXC.—*On the Dairy and Feeding properties of Improved short-horns.* By Dr. Elmer.

Mr. Fleet,—Agreeably to my promise, I continue the subject of Improved Cattle—one that is not easily exhausted in this country. Yours, &c. B.

Bridgeton, N. J. Jan. 9th, 1827.

Sir,—It affords me much pleasure to be able to communicate to you the result of my labours to improve my stock, and the high opinion which I entertain of *the improved short-horns, for the dairy and stall, confirmed by personal observation, and actual experience with those in my possession.*

In making a selection of animals for the purpose of improving my stock, I commenced by purchasing of Col. Powel, in the year 1823, a cow of one fourth blood; the next year one of three fourth blood, and a full blooded male; since that, others of different degrees of blood, and some of pure blood, both male and female; thus gradually progressing from year to year through different grades of blood, till I have attained the pure stock. In pursuing this course, I have observed that the nearer I approached the pure blood, I found them to be more hardy, subsist on less, and keep in better condition on short pasture, than any of my other stock. From them I have bred calves of the most promising appearance, and greatly excelling those of any other breed that I have seen.

I have at this time three half blood yearling steers which are remarkable for size and condition, very docile, and in their general appearence are superior to any other cattle in this part of the country. They grazed during the last season, (from May until the middle of November,) on high land pasture, and continued improving so fast as to attract the attention of many of the neighbouring farmers, notwithstanding the severity of the drought, and the great annoyance of the flies and moschetoes which literally swarmed with us during the season. In regard to their dairy properties, they are equal to those of any other breed.

I am with much esteem, Yours, &c.

William Elmer.

John P. Milner, *Rec'g. Sec'ry, Penn. Ag. Soc.*

[For the New-York Farmer.]

Art. CCXCI.— *Desiderata in the Advancement and Improvement of the Agriculture of the United States.* By R. L.

Sir—Since my brief essay on the importance of preserving and cultivating timber trees, I have been so incessantly engaged, as not to have leisure to trouble you with another communication.

It has long appeared to me sir, that we, cultivators of the land, are far in the rear of every other pursuit and occupation, as to the improvements we have made or are making, probably arising from the facts that we necessarily are scattered and dispersed over a wide extent of country, and that we have very little communication either by meetings, or by periodical or other publications.

It is not from any jealousy or suspicion of each other, any fear of rivalry, or opposition, that we are thus kept apart and prevented communicating our knowledge and experience:—no class of people are more communicative, or more sincerely rejoice in the prosperity of each other; it arises from the very nature of our occupation, and the inconvenience can only be overcome, and the evil removed, by Agricultural and Horticultural Societies, and a wide diffusion of periodical publications on Agricultural subjects.

The very location of your office as the publisher of an Agricultural work, in a city, and the existance of so many Agricultural and Horticultural Societies, in cities or their immediate vicinities, proves the advantage of a dense population to Agricultural improvements, as it manifestly is to improvements in all the other pursuits of civilized life. This paper is intended to be only an introduction to some others, that shall certainly follow, if my life and health are spared:—I do not so much hope to say any thing new, or to place any matter in a new light, as to excite some more experienced hand. Our whole national stock of mental energy should be put under requisition to aid in a *work* essential to all classes, and from whose prosperity and success all

other classes and occupations will derive lasting advantage.

In some other nations, and in long *by-gone ages*, much greater advances and improvements have been made, in agriculture, than in this enlightened and highly favored nation.

The grand *desiderata* in the advance and improvement of Agriculture are,

First—An easy acquisition of clear and indisputable titles to real estate; or, leases on favorable terms for long periods of time, and these can only be granted by those whose titles are clear and undisputed.

Second—Absolute protection not only in the titles to our land, but in the enjoyments of all their products. These too depend on the forms and principles of the government, and the administration of it.

Third—Protection against foreign rivalry; this must be direct, as prohibiting the introduction of foreign rival products, and indirect, as requiring those who manufacture for us, to consume our Agricultural products, whether these manufacturers reside in our own, or in foreign lands. This also depends on the government.

Fourth—A hardy and robust Agricultural population.

And lastly—A wide diffusion of Agricultural knowledge, as well among those who perform, as those who direct its operation.

In the preceeding five subdivisions of the subject, are embraced, it appears to me, the essential elements of a most perfect Agricultural system.

The consideration of each of these would form the materials of a lengthened essay, or perhaps more correctly speaking, a little volume. All that I shall at present pretend to, will be mere sketches or hints, in the hope, as before expressed, of exciting the attention, and calling forth the labors of some more experienced, and more competent hand.

Passing by the consideration of original titles, I will briefly remark on leasing of real estate for agricultural occupation.

Valuable improvements of land can only be the result of capital expended—capital can only be acquired either by a long course of industry and economy on the land, or by some more fortunate occupation.

It is desirable therefore to invite capital into the Agricultural pursuit, and so far as safety in the original titles gives this invitation, it is perhaps ample in all the states, but an equally important consideration with all capitalists is, to secure a reasonable and moderate return of interest for the capital advanced.

A person able to purchase and fully improve a farm of from 100 to 4 or 500 acres of land, would not desire afterwards to take the most laborious part of its cultivation and management, especially if he were advanced in years, and had already occupied the first of his days in some laborous pursuit to acquire this capital. He would desire. as capitalists in the mercantile line do, to advance the capital to a partner who was without; offset capital, as it were, against the time and attention of his partner, and divide profits.

In this light it must be viewed, and when landlord and tenant can consider themselves in the light of partners in a joint concern, the one advancing capital, and the other his time and attention as an offset, and when the active partner will feel himself bound to preserve the original capital entire, perfect and unimpared, and make a reasonable and an honest division of the profits of the joint concern with the owner of the capital, the same as manufacturing and mercantile co-partners divide, we may justly conclude that a very important advance has been made in Agricultural improvement.

As this business is now managed in this state, (New-Jersey,) so far as my knowledge extends, few leases are granted for more than a year. It is a constant strife between landlord and tenant, or between the owner of the capital and the active partner, which can get the best of the bargain. The owner to get as large a rent as possible, and the tenant, or working partner, to make as much profit for himself, with as little labor as possible; and utterly regardless of the condition of the capital, whether it has been returned entire to the owner, or whether it has been depreciated little or much in value.

This state of things, this want of good management between the owners of the capital and the active partners, can only be obviated by the granting of long leases upon favorable terms, and transferable and renewable at the option of the tenant, thereby making it as much the interest of the working partner as of the owner of the capital to make improvement, and increase the amount of capital employed.

Mere words sometimes have an important influence, and create, as it were, a kind of destiny in human affairs. The terms used, LANDLORD and tenant, have for ages past conveyed the idea of a superior and an inferior class of men; perhaps the terms, (conforming to the spirit of the age,) could be judiciously changed for those of "*silent*," and "*active*" partners in the agricultural business; we might then see advertisements something like the following:

WANTED—A partner in the Agricultural line, a young and active, sober man, who has been brought up in that profession, who can give good testimonials as to his character and abilities; to such an one, a capital in an improved Farm, well stocked, worth at least $10,000, will be advanced, and for a period as may be agreed upon between the partners, and on terms mutually advantageous. Apply to

Lodi, New-Jersey. A. B.

When we have advanced thus far, young men, lads, will be seen to qualify themselves to be partners of the more aged, and those who have capital, by serving a regular apprenticeship some experienced and practical agriculturalist; and this first important step will thus be made.

As intimately connected with this branch of the subject, if you could obtain, and give in your valuable Repository, the outlines, or a synopsis of some of the best forms of leases for years, it would doubtless be an important addition. Doubtless some of the forms used in England would greatly aid you. My experience in this particular is altogether limited. The sum of this Essay is, that to perfect agricultural improvement, it must be made a safe and profitable investment of capital, such as can with propriety and safety be left to widows and orphan children, and the persons employed as the active occupiers of the capital, must have secured to them a reasonable remuneration, and have before them a constant prospect of advancing. It is this prospect of bettering our condition that forms the grand stimulus to all exertion, *and that*, connected with a strong moral sense of what is right between man and man, and a fixed determinatian to do *only* what is right, will bring us back to the enjoyment of some-

thing like the *Eden* from which we have been expelled. R. L.

Remarks.—We welcome R. L. again to our columns. His communication embraces subjects of vital importance to Agriculture.—*Ed.*

[For the New-York Farmer.]

ART. CCXCII.—*Superstition—Alyssum Sativum.* By D. T.

A disposition to draw general propositions from partial observations appears to be common to the human mind, so long as it remains undisciplined by science. Much of the superstition of past ages may be traced backward in this direction, together with those notions so nearly allied to superstition, which oppress the ignorant cultivator. In the following extract, some of these errors are strongly delineated, and though it shows spots on the character of some of our countrymen, I hope their exhibition will be useful.

"*Alyssum sativum.* This foreigner is an unwelcome intruder in our flax crops, where it is sometimes pretty abundant. Some few of our farmers are so deplorably ignorant of the botanical branch of their profession, as to believe that this plant is a sort of *degenerate flax;* and that the metamorphosis is the result of sowing flax seed in a burnt soil—as where, brush heaps, &c. have been burnt! This is worse, *if possible*, than the transformation of *wheat* into *cheat* [*chess*]. But happily for the dignity of the agricultural character, the extension of natural science among our young farmers is rapidly exploding all such disreputable absurdities." From *Darlington's Florula Cestrica*, page 73. D. T.

ART. CCXCIII.—*Miscellaneous, Original, and Selected.*

Plants from a Higher to a Lower Latitude.—MR. FLEET: In one of your recent numbers, there was an excellent article on the acclimation of plants. It was there stated that plants succeeded the best in the highest latitude in which they could mature their fruit or seed. Judge Buel, of Albany, as well as other eminent culturists, has advanced the opinion that it is better, in consequence of the above fact, to obtain plants and seeds from a colder rather than a warmer or one of the same climate. I would wish to inquire, if Judge Buel's conclusion is a legitimate one?—if his observations will enable him to command facts? The subject is an interesting one. Will Mr. Buel have the goodness to give the public, through the New-York Farmer, any information he may possess on this subject? M.

New-Jersey, Oct. 1831.

Poisoning Plants.—The Monthly American Journal of Geology contains a series of experiments on the insertion of several kinds of the most violent poisons into the sap vessels, and application of them to the roots of a number of different species of perennial and annual plants. These experiments, although performed by several distinguished scientific gentlemen in Philadelphia, were entirely at variance with those previously made by learned men—not having any injurious effects on the plants.

Cattle Sales.—I am glad, Mr. Fleet, to witness the spirit of improvement and enterprize excited amongst our American Farmers, and Breeders of cattle, horses, sheep, and swine,—the thing is now going on progressively, and thus by its being reduced to a system, alike as in England, it will also become a profitable as well as a fashionable and rural avocation for the amateur, as it ever will be to the more practical and scientific Farmer, Breeder, and Grazier. Hence the beneficial result of public sales of cattle, &c. &c. for the improvement of live stock of all kinds; and when premiums too are given to those exerting their talent of superior judgment in selecting animals possessing the necessary qualities to breed from, surely, Mr. Editor, the community must become enriched by these and such like praiseworthy discoveries and disseminations throughout every state in the Union. For by thus giving publicity to the public sales of superior stock, it has a tendency to bring enterprising men together from distant parts, and thus a reciprocal good must eventually result from these judicious meetings and public vendues of cattle and other sales of "*stock animals*," for improving our native breeds.

A SUBSCRIBER.

Newburgh, October 27, 1831.

Herds of Frozen Elephants, Rhinoceros, &c. &c. In No. VII. of "Bulletin de la Societe Imperiale des Naturalistes de Moscou," there is a letter from M. Hedenstrom, to whom the Russian government had intrusted an expedition for the purpose of tracing geometrically the coasts of the Icy sea, from Lena to Colyma, and of making a description of the isles of the north. He was three years in these remarkable countries, and discovered a new Island, which he named *New Siberia*, because its general appearance is much more savage than that of the old Siberia. In the unchangeable icy crusts of these countries there were found buried thousands of mammout; (commonly called mammoth,) rhinoceros, buffaloe, and other antediluvian animals. New Siberia is indeed a country full of wonders, but which naturalists can only admire, for it is impossible to study nature there. The ground, frozen and hard as the rock, cannot be dug into; and the summer is too short for the necessary researches.—*Mag. of Nat. History.*

Easy method of destroying Insects, intended for cabinet specimens.—Put a quantity of sal. volatile, or common smelling salts, into a wide mouthed bottle: the insects will die soon after being introduced into it. For the larger moths, it is recommended, first to make a solution of chrystallized oxalic acid with a little water: then holding the moth gently on the under side, between the wings, with the finger and thumb of your left hand, dip a sharp pointed quill, without a split, in the solution, run it into the insect between the first pair of legs, and after one or two applications, the moth will be dead.—*Monthly Journal of Geology.*

Wool.—The Boston Patriot states that the imports of wool into that city for the two first quarters of 1831, are 1,116,751 lbs. The imports for the third quarter are *estimated* at 800,000. Total import for nine months, 1,916,751 lbs. into the single port of Boston alone.

On packing Acorns for Transportation.—In order to secure the growing of acorns sent abroad, they ought to be packed in sand, moss, or any other substance likely to keep them from drying, and this ought to be done very soon, say within two or three weeks, at farthest, after they have been gathered Without this precaution, not ten in a thousand will vegetate. This is the case with many other kinds of seed, such as chesnuts, walnuts, and other oily nuts. For want of attention to this object the kind intentions of many persons are very frequently defeated. Yours, &c. N. H.

Worms on the Roots of Grape Vines.—The vine has a host of enemies above ground. I now have to report two foes below the surface quite as fatal as any above. About fourteen years ago, I transplanted into my garden a vine of the small white grape; I believe it is the sweetwater. It bore the second, third, and fourth years, but the two last the fruit wilted, and did not ripen; from that time it ceased to bear, and has dwindled away, the leaves becoming very small, the annual shoots few and wiry, and the whole vine having the appearance of decay. I had it dug up yesterday to ascertain the cause, and found the large roots had been eaten out, and only a shell left. After some search, I at length found the enemy, a large white worm, an inch and a half long, with a reddish brown head, armed with a pair of hard forceps, capable of perforating wood, and working horizontally. He is as thick nearly as the common grub, but differs from him in several respects; he is nearly half an inch longer, the first half of the body has rugæ, and is larger than the latter half; he walks upon his belly, while the grub, you know, on a hard surface, walks on his back, and not on his feet. I found him imbedded in a large root, at the termination of his excavations, and with difficulty cut him out alive. I put the marauder on my mantelpiece, loosely wrapped in paper, intending to send him to you, but in my absence for some hours, he perforated his paper prison and escaped. I have not been able to find him.—*American Farmer.*

The shipments of Flour from Rochester,—East on the canal, for the last 2 months, ending on the 15th Oct., amount to *fifty eight thousand six hundred and fifty-five barrels*—(58,655.) The receipts of Toll, the last month, ending the 15th Oct. amount to twenty-two thousand five hundred and fifty-one dollars eighty-six cents—($22,551,86.)—*Genesee Farmer.*

Bees.—The following extract from a communication to the Bristol County Agricultural Society, shews the manner in which the writer has succeeded in excluding from his Hives insects so often destructive to Bees.

'In the first place, I plant the posts of my bee-house in troughs or gutters, filled with water to prevent insects from getting into the hives, and frequently strew fine salt at the mouth of the hives to prevent the worms from troubling the bees. I have kept bees for four or five years, and have never been troubled with any kind of insects.

'Jacob Shepard.'

Winter Melon.—At a meeting of the Horticultural Society of Charleston, on the 10th August, of which we find an account in the Charleston Gazette, Mr. J. D. Legare exhibited the Winter Melon of the South of Europe, one of the properties of which was its keeping perfectly sound during the whole winter.—These melons, it is said, are raised in large quantities on the shores of the Mediterranean and in the Orange Gardens of Toulon, whence the markets of Paris are supplied. They are also imported into England, and are to be found in the fruit shops every winter.

American Farmer.

Preservation of Butter.—The following directions are extracted from a letter from Mr. Varle to the Editor of the American Farmer:

"In order to keep butter sweet and preserve its balsamic quality, it ought not to be washed, as it is often done in water, but be worked until the salt is completely dissolved, and all the particles of milk disengaged from the butter;* this is to be accomplished by wooden paddles, and not as some do it by the hands, and in order to prevent the paddles from sticking to the butter, they ought to be well scalded, or rubbed with salt, and cooled alternately as often as wanted, and of course the same precaution ought to be taken about the churn; when butter is to be put up in kegs, they ought to be made of well seasoned wood, well cleansed and scalded; previous to the packing the butter, the keg ought to be rinsed with sweet brine or pickle; the general method pursued now, is by spreading salt on the bottom of the keg, which is injurious to the butter. If there is not butter enough to fill the keg, which is often the case, pour immediately some strong brine, bearing an egg on the top, to exclude the air from it; then, when you churn again, take away that brine and put the butter in until you get the keg full; and whereas there is an impossibility to fill up the keg completely, and to obviate the introduction of air, it is proper to pour on the top some strong brine.

"An object also of great importance is to have the keg well made, so as to keep well the brine, otherwise the butter would become rancid; another consideration of consequence for the farmer living far from the sea ports, is to make use of marine salt well pulverized instead of the back country salt, during the whole process, the salt which is used in the western country being the production of salt wells, imparts not only a dark color but a bad flavor to the butter, especially when newly manufactured.

"As to the butter which is packed in country stores, it ought to be put into the kegs in proportion as they receive it, and to cover it with brine, and never to put salt on it, because it does not dissolve, and is found in the grain, which is an injury to the butter; besides the following precaution ought to be observed in packing the butter in kegs, never to put the different colors of roll butter together, but to have kegs for every color, and not to mix with it the roll which is rancid, because it gives a bad taste to the whole keg.

"If both the farmer and country merchant did pay attention to the above recommendations, many thousand dollars would be gained by it in the U. States, for instead of making a butter which brings about 12 cents a pound, on an average, it would sell for 17 cents, of course from 40 to 50 per cent. more, and suppose 50,000 dollars."

* This process ought not to continue too long, for fear the butter may become tough and gluey.

Productive Squash Vine.—We are informed that Solon Whiting, Esq. of Lancastar, Mass. raised this season, 228 lbs. of crooked neck Squashes from a single seed.—*N. E. Farmer.*

[We are pleased to hear again from A. J. D.—hope her visits will not be, in one respect, like those of angels—few and far between.—*Ed. N. Y. Far.*]

For the New-York Farmer.

AUTUMN.

Summer has fled—has past away,
And Autumn has resum'd her sway;
Yet Flora's lingering beauties last,
Forgetful of the coming blast.

The Dahlias glittering blossoms still
Expand, unmindful of the chill
Of Autumn; and the Alyssum beds
Are still in snow-white flowers clad.

And here the Amaranthus see
Emblem of Immortality,
Commingled with the last sweet Rose,
That still its monthly tribute knows.

And Flora has her boasted ones
'Midst Autumn flowers: Chrysanthemum
In varied hues, her claims maintain,
As mistress of the flowery train.

Autumnal flowers—I love thee best,
I love thy neat—thy simpleness,
Better by far, than Spring's gay bloom,
And Summer's flowers that fade so soon.

And Autumn too—I love the scenes,
Where all thy fading glory reigns,
And there to hear the dying sigh
Of summer as she passes by.

A. J. D.

New-York Cattle Market, Monday, October 31.

About 1100 head; sales very dull; 800 sold for 4 1-2 to 6 1-2 dollars per hundred, average price not exceeding 5 3-4. One lot of very fine spayed heifers fatted by E. Stevens, Duchess Co., sold previous to Market at 7 1-2 dollars per hundred.

Sheep—4000 in market; sales very dull; upwards of 500 driven back to the country, in consequence of the extreme bad market.

New-York Produce Market, November 2, 1831.

Ashes—Per 100 lbs. Pots, first sort, 1831, 5 10 to 5 12½, Pearl, 5 25 to 5 30.

Barilla—duty free, Teneriffe, ton 38 00 to 45 00.

Beeswax—duty, 15 per cent ad. val. White, lb. 44 to 45, Yellow 18 to 00.

Bread—Navy, lb. 0 to 3¼, Pilot, 0 to 4½, Crackers, 5½ to 5¾.

Coal—duty, 6 cents per bushel, Liverpool, chal. 00 00 to 13 00, Scotch 00 00 to 00 00, Sidney and Bridgeport 00 00 to 9 50, Albion 9 00 to 00 00, Virginia 6 75 to 9 25, Anthracite, ton, 6 00 to 7 00.

Cordage—duty, tarred, 4 cents, untarred, 5 cents per lb. Foreign, lb. 11 to 00, American, cwt. 00 00 to 00 00.

Cotton—duty, 3 cents per lb. New-Orleans, lb. 10 to 12, Upland 7½ to 10, Alabama 8 to 11, Tennessee 8 to 9½.

Cotton Bagging—duty, 5 cents per square yard, Hemp, yd. 13 to 17, Flax 12 to 16, Do. American 19 to 21.

Feathers—duty, 15 per cent. ad. val. Live, Foreign, lb. 14 to 20, American 35 to 37½.

Flax—duty, $50 per ton, Russia, lb. 10 to 11, American 6 to 8.

Flour & Meal—N.Y. superfine, bbl. 5 50 to 5 62½, Troy 5 81 to 0 00, Western Canal 5 87½ to 6, Ohio 5 69 to 5 75, Philadelphia 0 00 to 0 00, Baltimore, Howard-st. 5 75 to 6 00, Richmond, city mills, 6 00 to 0 00, Do. country, 5 50 to 5 62½, Alexandria and Georgetown 5 50 to 5 75, Fredricksburg 5 50 to 0 00, Petersburg 5 50 to 5 62½, Scratched and fine 5 31 to 5 37½, Middlings, fine, 5 00 to 5 25, Rye Flour 4 37½ to 0 00, Indian Meal 3 75 to 3 87½, Do. do. hhd. 17 50 to 00 00.

Grain—Wheat, N. River, bushel, 1 12 to 1 16, Do. Genesee 1 18 to 1 25, Do. Virginia 1 10 to 1 15, Do. N. Carolina 1 00 to 1 12½, Rye, Northern, 88 to 00, Corn, Yellow North, 65 to 70, White, L. Island and Jersey 66 to 68, Southern 50 to 60, Barley, N. R. 1 15 to 1 25, Oats, South and North, 42 to 50, Peas, white dry, 7 bushel, 7 00 to 8 00, Do. black eyed, bushel, 00 to 00, Beans, per tierce. 7 bushel, 7 50 to 8 50

Hemp—duty, on Russia, $60 per ton, Manilla, 15 per cent ad. val., Yarns, 5 cents per lb. Russia, ton, 225 00 to 240 00, Manilla 240 00 to 245 00, Sisal 000 00 to 000 00, American, dew-rot, 160 00 to 200 00, Yarns, Kentucky, lb. 00 to 00.

Honey—duty, 15 per cent. ad. val. Havana, gal. 50 to 51.

Hops—first sort, 1831, lbs. 13 to 14, second sort, 11 to 00.

Horns—duty, 15 per cent. ad. val., Horns, Ox, per 100, 5 00 to 20 00.

Lumber—Yard selling prices, Boards, N. River, M. ft. 00 00 to 15 00, Do. Eastern Pine, 16 00 to 17 00, Do. Albany do. pce. 16 to 17, Plank, Geo. do. M. ft. 25 00 to 35 00, Staves, W.O. Pipe, M. 56 00 to 60 00, Do. hhd. 36 00 to 40 00, Do. bbl. 29 00 to 32 00, Do. R. O. hhd. 27 00 to 28 00, Heading, W. O. 54 00 to 55 00, Hoops 25 00 to 28 00, Scantling, Pine, 15 00 to 16 00, Do. Oak, 20 00 to 25 00, Timber, Oak, sq. ft. 20 to 25, Do. Geo. Yellow Pine 25 to 30, Shingles, Cypress, M. 3 75 to 4 00, Do. Pine, bdl. 2 50 to 3 00.

Provisions—Beef, Mess, bbl. 7 00 to 7 50, Prime 4 75 to 5 00, Cargo 0 00 to 0 00, Butter, N.Y. dairy, lb. 15 to 16, Shipping 10½ to 11½, Philadelphia 10 to 11, Hog's Lard 9 to 10, Pork, Mess, bbl. 12 00 to 13 00, Prime 10 00 to 10 75, Cargo 00 00 to 00 00, Cheese, American, lb. 5½ to 7, Hams, Virginia 10 to 11, Northern 10 to 11.

Rags—duty, Free, Foreign, lb. 4 to 8¼, Country 3 to 5.

Rice—100 lb. 3 to 4.

Salt—duty, 15 cents per 56 lbs. Turks Island, bush. 56 to 58, Isle of May 00 to 00, St. Ubes 00 to 00, Cadiz 00 to 00, Lisbon 00 to 00, Liverpool, ground, 43 to 44, Do. blown 00 to 00, Do. do. sack, 2 12½ to 2 20.

Sugar—duty, Brown 3, White clayed, 4, Refined, 10 to 12 cents per lb., British Island, lb. 6 to 9, St. Croix 7 to 9, New-Orleans 5 to 7, Havana, white, 9½ to 11½, Do. brown, 6½ to 7½, Muscovado 5 to 7, Porto Rico, 5½ to 7½, Brazil, white, 6½ to 8½, Do. brown, 5 to 6½, Manilla, brown, 6½ to 7, Lump 13 to 14, Loaf 14½ to 16½.

Sumac—duty, 12 per cent. Sicily, ton, 85 00 to 90 00, Trieste 55 00 to 60 00, American 35 00 to 40 00.

Tallow—duty, 1 cent. per lb. Foreign, lb. 00 to 00, American 10 to 10¼.

[For the New-York Farmer.]

ART. CCXCIV.—*The Country Farmer.*—No. VIII.—*The true dignity of Manners and Deportment.*

MR. FLEET,—Having spoken rather contemptously of what are called the 'accomplishments' of a fashionable education, let me say a little about what I consider desirable, as to personal manners, as well for us Farmers, country people, as for all others. Self respect, is a first requisite of good manners, the consciousness of which leads directly to self-possession, on which all true dignity of personal deportment so essentially depends. With a mind at ease, the manners are easy, and graceful. He who is constantly on the tenter hooks, seeking superiority of extension, greatness, in the eyes of others, is not only not at ease, himself, but is a sort of disquieter to all those around him. True dignity, with all the gracefulness of manner that results from it, is the offspring of nature, not of art. He who will always be himself, at home, abroad, and in all sorts of company, may, if he have mind and intelligence, always be at ease, and every where be received with all the attention that is due to him. The man of affectation, on the contrary, is never at ease, because acting in an assumed character. There is, a consciousness of rectitude, that which does more toward making the manners agreeable, than most persons seem to be aware of, as well as in a constant habit of being ourselves, every where, and acting like ourselves. Liars, they say, should have good memories; and so also should players, not merely those of the stage, but all who personate characters not truly their own. In order to apply all these remarks, it is necessary to consider that the very essence of true politeness, is nothing more nor less than actual civility. He who would always do to others exactly as he would have others do by him, and act so, cherishing self-respect, and respectful regard for others, may go where he will, and be every where a man of good manners. The forms of society, however, are not all the same; and much that we find, in circles where manners are made the most artificial, by excess of studied 'accomplishments,' has very little to do with mere civility, and even less with the gospel maxim above quoted. Under the idea of politeness, we meet with a redundance of unmeaning forms, and so much goodness of exterior, as to make us country folks believe the interior must be bad, where there is so much that seems to us overwrought. The presumption, rather, I should say, is, that all is not right; where there is so much that we deem artificial. This is what so '*beflutters*' our young, country bred people, on first going to town, and what makes them so slow in learning to be as *polite* as our city cousins.

In real dignity of character, and in all that ease, and gracefulness of manner, that gives to personal appearance and deportment such a charm, I have seen as fine models, among country Farmers, as in any of the walks of life. In the higher circles, as to mind, we meet with much less of mere ceremony, in all countries, than in the subordinate ranks. There was less in the house of our Washington, Adams, Jefferson, Madison, Monroe, and Jay, Morris, and the late Chancellor Livingston, than in the houses of most small men, on setting up for gentility. In the circles of those men, country people were perfectly at their ease, and without any occasion to blush for their simplicity of manners. There was much less extravagance, also, in their dress, and in that of the circles in which they moved. General Washington used often to say, that, of all men he knew, the most polite men were those who had the least politeness, as a model of which he would name certain Farmers, whose names are well known to the public. They were good men, and great men, but it always appeared to me that the whole sum and substance of their very agreable manners, consisted in mere civility, and the abiding influence of the golden rule of the gospel. They had such manners as are formed in the families of intelligent and sensible people on their Farms, in the country, with which they may travel agreeably, every where, among people of mind, each as regardless of the others etiquette, as of his dress. In order to be always perfectly at home, in our manners, we have only always to be perfectly ourselves, at home, and abroad; and to consider civility as all that there is, of any importance, in what passes, every where, so far as good sense is concerned, as good breeding.

Having introduced my readers to some of the *Sugar-Works* '*Parties*,' of my youth, they will excuse me for a passing notice of some others, pertinent to the present subject. In the autumn of 1814, during the late war, I had occasion to transact some business with Mr. Madison, now a Farmer, and a magistrate, then President of the United States. He, as is well known, was one of our *Men of the Revolution*, a fine model, associated with as fine a model for Women, in the late Mrs. Madison. Mr. Madison was unwell, confined to his bed, and I was invited to the house, the House of the Nation, the 'Palace,' for the time being, of our Presidents. There was a spare bed for me, with social affability in the family, and I soon found myself as much at home, in my manners, as if at my own home. Here were 'Parties,' often enough, but no affectation of any thing better than civility, in manners, and there was so little of mere ceremony, idle etiquette, that, though I had found much fault with the conduct of the administration, through the war, I began to suspect there had been too much of prejudice, in my estimate of the men, and so, in fact, I have found it. I there met with the principal men of the government, and had them, in my way, on a close and intimate inspection. One afternoon, just after a Cabinet Council Meeting, while the rooms were filled with company, a stout, portly, and athletic old man, in the habit of a Farmer, came up and shook hands very cordially with Mr. Madison. It struck me, at the time, that his manner was such as to say, though with perfect modesty, I, also, am a Man. There was about him an air of conscious dignity, such as we have been wont to conceive of an old Roman Senator, that could exchange civilities with any body, but cringe to nobody. He had a daughter with him, a Farmer's daughter, and her manners were worthy of the sire, and the Farm. When I was introduced to them, we shook hands like old acquaintances. No man in the room was more perfectly at his ease, or treated with more attention, by all the company, than this Farmer. As the company dropped off, and the evening advanced, the circle became more and more domestic, gathered around the fire, and engaged in conversation. The topics were diversified, partly of public business and passing events, recent and past, and much was said of the days of the Revolution, and of Washington: for

this Farmer had been one of his most confidential friends and counsellors. He was still a Farmer, as in the days of Washington, and loved and honored Husbandry, upon which no small share of our evening's conversation turned, and in which I heard much of Washington's ardent attachment to Farming, and Farmers—no small praise of our business. Mr. Monroe, Mr. Dallas, and Mrs. Madison, with some others, of that evening circle, have gone to a better world; but should Mr. Madison, or Mr. Rush, chance to see these numbers, they will please accept a passing tribute to exalted worth, and may learn, with regret, that the justice, then demanded of the government, is still withheld from THE COUNTRY FARMER.

September 6, 1831.

[For the New-York Farmer.]

ART. CCXCV.—*Remarks on the Criticisms on Horticultural Exhibitions.* By 'I GUESS.'

MR. EDITOR,—Please to insert these few valedictory remarks to my friend the learned critic "Q," of the Genesee; it will be the last I shall trouble you with in this small game business.

He seems well pleased with his own writings, for he more than intimates in a former paper, that his criticisms and cogitations have been useful in reforming Horticultural affairs; I am glad he thinks so; I also may be of opinion that my friendly hints may be useful to him, for as he seems to be liable to *err* himself, he will no doubt be more careful in his criticisms on the errors of others in future; a little more amendment, with regard to that conceited, hasty, style of his, will be still an improvement. He says, "He (I) ought not to have interfered with my (his) criticisms." Oh, dear! well, I thought the sauce that was good for a goose was good enough for a gander. "He still *thinks* Queen of the Meadows, or Meadow Sweet, must have been S. ulmaria." Oh, no; I *proved* it was so. Again, "Now it so happens that I feel no more deference for London Nurserymen and their Catalogues than I do for some in New-York." Quite gratuitous—for I suppose nobody cares whether he does or not. But I thought Lindley, Sweet, &c. were authorities—yes "high authority." The Catalogues I alluded to were Donn's catalogue; (so far as it goes,) Loudon's Encyclopedia of Plants, Sweet's Hortus Britannicus, &c. &c.; the two former corrected by Professor Lindley himself, I believe. I said nothing about Nurserymen's Catalogues for authority, but in the very teeth of this flourish he does not only quote from these catalogues of Nurserymen, but goes further, and quotes an unknown "Garden of great celebrity," to prove that Geranium maculatum (spotted) is called blue Geranium, but could not find the plant in all his travels. I do not know for what reason this wonderful affair is mentioned, except to show that the writer was hard driven for a subject to write about. "He has misquoted my reference to Professor Eaton," about the Meadow Sweet, I suppose; I only quoted from his own paper, right or wrong I know not; and then adds, with a bounce, "Eaton and Torrey are better authorities than *any European authors whatever;*" but I suppose he only meant that they knew what the English name of the European plant, the *Spiræa ulmaria*, ought to be called, better than any European authorities. I have neither Eaton or Torrey at hand, so can only judge with data that 'Q.' affords me. I thought it strange to be accused of blundering, because I could not understand how it happened that all the shrubby *spiræas* were called Meadow Sweet, and to prove my blunder he, I suppose, (not I) misquoted these gentlemen.

I must quote a paragraph of his last paper, because it is quite complimentary to myself—"My critic properly translates *atrosanguinea, dark crimson;* yet this is not its color in *Thorburn's* list, but *scarlet*, and in *Lindley's* it is *purple*, such also is the color of *P. nepalensis*, (not *nepaulensis,*) which a person half as careless as the writer of that report might call 'rose color.'" The English of this appears to be, that the *dark crimson*, *scarlet*, *purple*, *Potentilla*, is also the color of the *P. nepalensis* which a careless person might call "rose colored!" Now, the plain fact is, that the *P. formosa*, (formerly Nepalensis,) is "rose colored;" *P. atrosanguinea*, dark crimson.

His winding up part of the paper goes off in fine style: "I have now met him (I Guess) at every point, and to *my view* he has neither *understood me nor the subject!*" To be sure, some of it was rather hard to make out, the *Potentilla color*, for instance; but I forbear.

Fair play, however, and I think friend 'Q.' complains very justly about two to one; this is not fair, even if it should be only two U's to one I, I, therefore, withdraw my hat and be off, I guess, and leave him to battle out with the other "adventurers," as he calls them; but before we part, I wish to remind him that my very modest, unassuming name, ought not to have offended him; it is a very common name, and strictly American—that no one can dispute; but only think now, for him to call me by such a wicked, outlandish name as "Harlequin," not one of that family in all America, that I ever heard of; these half devil sort of gentry had better stay away from us,

'I GUESS.'

REMARKS.—It is perfectly easy to begin and continue a controversy; but quite the reverse to bring it to a close. We are glad, therefore, that 'I Guess' has shown the same good sense in closing as he has in conducting the controversy.

If 'Q,' uninfluenced by self-complacency, will examine the style of his first two criticisms, he will discover extravagance of expression bordering on ridicule. He will thus account for that style of his reviewer which he calls "mockery"—and from the frequent occurrence of the word 'guess,' he can learn the occasion of the troublesome signature. In our own remarks in relation to 'Q,' we intended nothing more than phrenological pleasantry.

If the editor of the Genesee Farmer took it upon himself, and gratuitously too, to assert that his paper had improved in consequence of the criticisms of 'Q,' it was not uneditorial nor "ungentlemanly" for us to give proof of our opinion to the contrary.

We assure 'Q,' and the editor of the G. F., that we, as well as 'I Guess' and 'Wonki,' have had no other 'emotions' than the risible.

We are perfectly willing that 'Q.' should continue his criticisms as long as he can accomplish any good. But we are not anxious that the subject should occupy our columns any more at present. Vale.

[For the New-York Farmer.]

ART. CCXCVI.—*Planting Corn for Green Feed.* By R. L.

Mr. FLEET—Sir, Every actual experiment which results favorably to Agricultural improvement, will, I presume, be considered worth communicating to the public. In this view I lay before you the following.

For two or three years past I have experienced a difficulty in keeping up a supply of green feed to cut for my cattle in the hot and dry months of July, August and September; and to obviate this difficulty I adopted the plan of planting corn to cut up and feed green, instead of grass.

My method was this:—

In April I manured about an acre of turf land, which had been pastured for three or four years, with about fifty cart loads of coarse manure, this I ploughed under as deep as the soil would admit, ploughing a furrow, and then raking in the manure, so as to completely cover the whole; the soil was a light loam, on a sand or gravelly bottom, that admitted of ploughing from 8 to 10 inches deep.

It was then well harrowed three or four times, (rolling would have helped it, but I had not the convenience of a roller at hand,) and furrowed one way only, the usual width for planting corn.

I then planted in the furrows, hills of two or three grains, every fourteen or fifteen inches.

Early in July I commenced cutting, taking out three hills and leaving one, this finally left about the usual crop of corn on the acre.

From the corn thus cut out, and by toping a part of it, when I had finished cutting out, I fed 3 cows and a horse through the months of July, August and September, and my crop of ripened corn on the same acre is about eighty bushels of good sound ears; I have husked and measured a part of it.

It will be obvious that my corn could be ploughed only one way, and in fact it was ploughed only once and hoed once, partly for want of time, and the soil being good, and season favorable, I found it grew well without further care.

I perhaps ought to have premised that for four years past I have kept three cows, a horse and two hogs on an acre and a quarter of grass land to mow, and about two acres of pasture as a range for the cows.

This season I commenced feeding green feed on the *second* day of May, and the acre and a quarter amply fed the horse, cows and hogs till I commenced cutting the green corn in July, and in addition to their feed, I made ubwards of a ton of excellent hay.

The horse is kept constantly in stable and the hogs in pen; the hogs are fed regularly, three times a day, same as the cows, with green feed, and will make at least twenty loads of excellent manure, and what is more, give my neighbours no trouble.

In England, where a highly cultivated and improved soil, and a constant moisture and coolness, adapted to grass, afford a constant supply of green feed, *soiling*, as it is termed, is attended with no inconvenience; in the heat and dryness of our summers, a substitute for grass must be found; this I think is found in our invaluable corn crop; and on the plan adopted by me, we not only have the green feed through the months of July, August, and September, but we have a good crop of ripe corn to gather in.

Most of my grass land is mowed three times, and some of the best of it four times in the season.

The union of the two crops, grass and corn, is doubtless the best possible plan of obtaining the greatest and most regular supply of green feed, and probably yields the utmost possible value that land can be made to yield in the pasturing of cattle.

ART. CCXCVII.—*Proceedings of the New-York Horticultural Society.* [Continued from page 280.]

October 25.—Mr. McKenzie, gardener to C. Oakley, Esq., presented a fine collection of green-house flowers, taken from the open air—Verbena trifida, Musk cluster Rose, Celseal innearis, Eupatorium, species novo, three varieties of scarlet flowering Geranium. Mr. James Paul, gardener to Gideon Lee, Esq., a very large Squash.

Nov. 1.—Mr. Wilson presented twelve kinds of Larkspur or Delphinium, Phlox paniculata, Chelone barbata, Valeriana rubra, Tradescantia virginica alba, French Marygold, fine double Balsams, India and Chinese Pinks, Rose of the Four Seasons, early Cinnamon Rose, and a great variety of other flowers—also 'a large sturdy flower of a Dahlia, which having been received without any name, he, for the present, designates the Vrow-cumiflora.'

Mr. Neale presented ten beautiful varieties of Chrysanthemum indicum.

ART. CCXCVIII.—*Abridged Translations from the 'Annales de L'Institute Royal Horticole de Fromont.'* By the EDITOR.

One of the leading articles in the 2d number of the present volume of the Annals, is a long notice of the young Gardener's Assistant, by Mr. Thomas Bridgeman of this city. The Editor, the Chevalier Soulange Bodin, speaks of the little work in very commendable terms.

The next principal article, extending to 15 pages, is a letter from Count Montelron of Clervant, near Chatelbrant, on his collection of trees. He endeavors to remove the objections of Europeans to American forest trees, on account of the greater proportion of liburnum or sap-wood. He supposes the extra sap-wood, and the lightness of American trees, particularly of Oaks and Walnuts, to be occasioned by the salts and abundance of vegetable nourishment existing in our virgin soil, giving them a very luxuriant growth.

He supposes that the American species cultivated in Europe will make timber equally solid and durable.

The writer gives long and full tables of planting, and acquired height and circumference of a great variety of trees during the course of 10 to 50 years.

In support of the opinion that soil and climate affect the durability of timber, it has been observed that steam boats built in the valley of the Mississippi, independent of the greater dangers of navigation, are not as durable as those constructed in the more eastern states, where the soil is less luxuriant, and the growth less rapid. Perhaps the difference in the combustibility as well as the durability of wood, depends as much on the soil as on the season in which it is cut.

ART. CCXCIX.—*Importance and Expediency of Agricultural Societies in the State of New-York.* By the EDITOR.

The improved condition of mankind has its origin in the formation of society—in united efforts of corporeal and mental strength. This being true in the sum of improvement, it is equally true in the parts which constitute the total. All the advances made in the various pursuits of mankind are accomplished by a combination of individual efforts, either in pursuit of a livelihood, or by voluntary associations. The dissemination of information is nothing less than a knowledge of the results of the combination of human energies. This information is engendered or produced in proportion to the closeness and energy of the union. Take an agricultural community for instance. Suppose them sparsely scattered over a great extent of territory, and consequently having but little intercourse. Will it not require ages for any considerable improvements? Suppose again the agricultural population to be dense, and intercourse frequent—would not improvements be more readily and speedily adopted? In addition to these, suppose some considerable proportion were in the habit of reading the accounts of the progress of agriculture in their own, and other countries—would they not be amongst the most forward to introduce and adopt improvements? And finally, suppose associations should be formed in every part of the country, embracing the most enterprising, influential, and best informed, who would correspond with those of other sections of the country, and of foreign countries—would not agriculture, under such circumstances, be in the most successful and flourishing condition?

This is found to be the case in those parts of our country, where the spirit for agricultural improvement has been sustained. The state of New-York has much greater facilities for the introduction of improved modes of farming, and breeds of domestic animals, than the state of Massachusetts; yet the latter is decidedly in advance—owing to the union of effort among the enlightened yeomanry in that state.

If the above is true, who that has patriotic blood flowing in his veins can withhold his aid in the formation of Agricultural Societies in the several counties of this state? The times are auspicious. Let us consolidate and perpetuate our blessings by multiplying the resources of our peaceful and happy country.

The Hamilton County Agricultural Society, of Ohio, have appointed one of their intelligent members to go through all the counties of that state, for the purpose of forming similar associations. Many gentlemen of influence and property in various parts of the state of New-York, stand ready to give the whole weight of their influence to this worthy and important object. A gentleman of much practical experience in agriculture, now on a tour in the southern counties, will cheerfully give his assistance.

(To be continued.)

ART. CCC.—*Cherries—From Prince's Pomological Manual.*

Guigne Bigaudelle. N. Duh. Le Berr. This cherry resembles in its form the Early Guigne; but its skin is brownish red, and becomes nearly black at perfect maturity, the flesh is dark red, somewhat firm, and of a rich flavor in warm and light soils. It ripens at the end of June.

Late White Guigne. Auth. Guigne blanche tardive. N. Duh. This variety is nearly round, but has a rather deep longitudinal suture; the skin is whitish, or of a very pale amber hue, tinged with light red; the flesh is firm, and of quite an agreeable taste. It is stated in the New Duhamel, that it does not attain its maturity in France until September. I have not had an opportunity of deciding that point as regards our country.

Late Red Guigne. Auth. Guigne rouge tardive. N. Duh. Guigne de fer, ou de Saint Gilles. Iron Cherry. This cherry is quite round, of a dark violet color, approaching black; it is one of the latest varieties, and even in the South of France does not ripen till July. The French writers state, that in the northern part of that country it does not attain its maturity until September.

Black Tartarian. Pr. Cat. Pr. Hort. Pom. Mag. Lond. Hort. Cat. Black Circassian. Hook. Pom. Fraser's Black Tartarian; Fraser's Black Heart; Ronald's Black Heart; Superb Circassian; Black Russian, of various collections and gardens. This very superior variety was long since introduced to our country by the father of the author, through whose exertions thousands of the trees have been disseminated in the Union. I copy the following description from the Pomological Magazine:

"This cherry is generally considered to have been brought into this country by the late Mr. John Fraser, from Russia. In the account given of it in the Pomona Londinensis, it is stated to have been introduced from Circassia by Mr. Hugh Ronalds, of Brentford, in 1794. We have also heard it said that it originated in Spain, whence it was transmitted to the Russian Gardens, and through them into England. It is a cherry of great excellence, bearing well as a standard, but doing best on an east or west wall, on which its branches are usually loaded with a profusion of rich and handsome fruit. It has received in our gardens a variety of names, of which those given here are only a portion; but those which are omitted are readily referable to some of the above. The wood is vigorous; the branches upright, the bark of the young shoots light colored and spotted; leaves large, pendulous, waved on the margin, evenly serrated, deep green, veins prominent beneath; flowers large; petals roundish oval, concave and imbricating; stamens shorter than the styles; fruit large, heart-shaped, with an uneven surface, and of a shining purplish black color, flesh purplish, juicy and rich; stone middle sized, roundish ovate."

White Tartarian. Pr. Cat. Pr. Hort. For. Lond. Hort. Cat. White Transparent; Transparent Crimea; Fraser's White Tartarian; Fraser's White Transparent; Lady Southampton's Duke; Lady Southampton's Yellow. The cherry, long cultivated and most generally known by this title, I discovered, a few years since, to be entirely erroneous, it being nothing more than a half barren variety of the White Heart. The genuine kind is a beautiful fruit, of medium size, excellent quality, and of a transparent appearance. The tree grows rapidly, erect like the White Heart, and bears well; the fruit ripens in June, and is highly esteemed.

Black Heart. Pr. Cat. Law. Mil. Lang. For.

Lond. Hort. Cat. Large Black Heart. Coxe. This tree acquires the very largest dimensions attainable by any of its class; the branches spread widely, and frequently form a head of thirty-five to forty feet in diameter, the summit of which is about thirty to thirty-five in height. It grows vigorously, and is one of the most productive in its crops. This variety is more extensively cultivated in this vicinity than any other, probably from the circumstance of its early introduction, as well as from its good qualities already referred to, and fully one half of the cherries sold in the markets of New-York are of this kind. The fruit is of fine size, of a heart shape, and blackish when at full maturity; but it is generally picked before it is ripe, when its color is only red, and it has attained but two-thirds of its size; the flesh, when perfectly ripe, is very sweet, rich, juicy, and high flavored, and it is even quite sweet before maturity, when the skin has only acquired its red color. The tree is of the most vigorous growth, and the fruit ripens about ten days after the May Duke.

White Heart. Pr. Cat. Lang. Law. Mil. Lond. Hort. Cat. For. Coxe. This cherry ripens immediately after the May Duke; the tree attains to an erect and rather conical form, spreading much less than most other varieties; the fruit is of medium size, oblong and heart shaped; the skin is of fine appearance, being a yellowish white on the one side, and tinged with pale red next the sun; the flesh is rather firm, of pleasant flavor, accompanied by a honied sweetness. The tree bears very indifferently, but grows with rapidity until it has attained considerable size. I noticed, when on a visit to the vicinity of Boston, in 1826, that the cherry, to which some gave this title, was a late whitish firm fruit, entirely different from the present variety: that error has, however, most probably been corrected since the formation of the Horticultural Society there, whose labors appear to be most unwearied, and eminently successful.

Black Eagle. Pr. Cat. Pom. Mag. Hort. Trans. The following descriptive remarks I copy from the Pomological Magazine.

"This is as good a bearer as the Black Heart, and far superior to that variety in the quality of its fruit: it is not to be doubted that this will one day usurp the place of that ancient variety in our gardens.

"It was raised by Mr. Knight from a seed of the Ambrée of Duhamel, impregnated with the pollen of the May Duke; and it really combines all that is most worth raising in both these varieties. At least, such is the account of its origin as given in the Horticultural Transactions, vol. ii. p. 208, and it is probably the genuine history of the variety, notwithstanding a different account to be found at p. 302 of the same volume.

"This is another of the cherries raised by Mr. Knight which have been allowed an introduction into this work; and it is not too much to say, that the improved varieties of the distinguished horticulturalist, to whom they owe their origin, are among the most valuable sorts that we possess. It ripens soon after the May Duke; the tree is spreading; branches strong, dark brown, partially sprinkled with a grayish epidermis; leaves oblong, accuminate, broadest about two-thirds from the base, doubly serrated, but not so deeply as those of the Heart Cherries generally are; partaking also of the thick texture of the leaves of the Duke Cherries; from their larger size, pendulous growth, and somewhat wavy margin, they are rather more allied to those of the former; petioles longish, and moderately strong, with reniform glands; flowers middle sized; stamens shorter than the style; petals roundish or roundish oval, concave, imbricated; fruit between heart shaped and round, flattened at top and bottom; stalk short and thick, like that of the May Duke; skin black, when the fruit is fully ripe and well exposed; flesh tender, with a dark purplish juice, rich and high flavored; stone small, round."

ART. CCCI.—*Metamorphosis of the Young of the Common Crab.*

A London correspondent of the Monthly American Journal of Geology, thus speaks of this interesting fact in Natural History.—*Ed. N. Y. Farmer.*

"Mr. Thompson, author of the 'Zoological Researches and Illustrations in Natural History,' is carrying reform into the crustaceæ, and is showing that many of this class undergo changes, as they advance to maturity, quite as curious as those of insects. He has succeeded in hatching the eggs of the common crab, and the young, instead of being like their papa and mamma, turn out to be the zoéa, which had been raised to the rank of a genus of the modern systems by Bosc, who discovered it in the ocean. When we shall be able to extend this tadpolization to the rest of the decapodous crustacea, a great reformation will be effected in the rotten boroughs of natural history. Mr. Thompson remarks of the metamorphosis of the young crabs, that at the tender period, before any change, they are 'essentially and purely natatory animals, and, no doubt, possessed of corresponding habits, swimming about freely, and without intermission, in search of appropriate food. In their perfect state, the greater number can no longer avail themselves of the power of swimming, but are furnished with pincers and feet, almost solely adapted to crawling, so that they are now under the necessity of confining their excursions in pursuit of prey, within more narrow limits. This curious piece of economy, explains what has ever appeared paradoxical to naturalists, viz. the annual peregrinations of the land crabs to the sea side; which, although acknowledged to be true, by several competent observers, could never before be satisfactorily accounted for."

ART. CCCII.—*Economy in Fattening Hogs.* By J. BUEL.

I have thrown by my steamer for hog food and substituted a boiler, and I think with manifest advantage. The former consisted of a 60 gallon cask, over a potash kettle, badly set. I could only work off four or five casks a day, with great labor and trouble, and the apparatus required to be luted with clay at every operation. With my new kettle, holding 30 gallons, which is a thin beautiful casting, I have cooked eight and nine barrels in half a day, and much better than by the steam process. This food consists of small refuse potatoes, of which I have nearly 100 bushels, or 15 per cent. of my whole crop, pumpkins and a small

quantity of Indian meal. A half day's boiling serves my hog family four or five days; and it is always kept prepared in advance. The actual expense of fattening hogs thus upon the refuse of the farm crop, is from 50 to 75 per cent less than feeding with dry corn.

The economy of my apparatus consists much in setting the boiler so as to have all the advantages of the fire. The interior brick work is made to conform to the shape of the boiler, leaving an interval of four to six inches between them for the fire, round the whole exterior of the kettle, with the exception of a few inches at top, where the flange or rim rests upon the projecting brick. Thus the boiler is not only encompassed by the flame, but the heat is augmented by radiation from the brick work. The fuel is burnt on a grate, which extends nearly to the kettle, four or five inches above the level of its bottom. My boiler being in operation while I am penning these remarks, I have ascertained, that a kettle of potatoes, with three pails of cold water, covered with boards, has been completely boiled in 18 minutes from the time they were put in, another boiling having been just previously taken out. My kettle was set by a son in his teens, without assistance, and was his first effort in masonry.

Albany Nursery, Oct. 20, 1831.— *N. E. Farmer.*

Art. CCCIII.—*Ridge Praire.*

This Praire is so named because it constitutes the dividing *ridge* between the waters which fall into the Mississippi on the west, and those which fall into the Kaskaskia river on the east. It is of great extent, its width increasing as you proceed northwardly. Its soil is not exceeded in fertility by any land out of the American Bottom. Many parts of it are thickly settled, and some portions of it have been settled more than twenty-eight years. In its early settlement, the inhabitants almost invariably fixed their dwellings in the edge of the woodlands, in order to have their timber convenient; but of late years many houses have been erected in the prairie, at considerable distances from any woodland, and it is found that the nearer you approach the middle of the prairie, the more fertile will you generally find the soil—a circumstance which more than compensates for the greater distance which your timber must be hauled. Though the cultivation of fruit trees has been too much neglected by the inhabitants, yet there is a considerable number of excellent orchards. The general surface of the land is neither a dead level, nor much broken; but gently rolling; affording sufficient dranes to carry off the surplus waters. The elevated situation of this prairie, and its remoteness from any stagnant waters, render it one of the most healthy situations in the state: while its proximity to St. Louis, from which it is distant only sixteen miles, gives its agricultural inhabitants an important advantage over those who reside at a greater distance. Excellent well water may be obtained in the southern section by digging about twenty feet.

The inhabitants of Ridge Prairie are mostly industrious and enterprising farmers, possessing moderate wealth, hospitable, enlightened and firmly attached to their country, and to its free, republican institutions. Many of them connect some mechanical business with their agricultural pursuits—frequently exchanging the vocations of the field for those of the shop, and thus agreeably diversifying their labors. Long may these rural scenes continue! Long may Ridge Prairie remain the seat of health, of competency, of rural delights, of friendly and social intercourse, and of unaffected hospitality!

"Still on thy meads so gaily green,
May numerous heards and flocks be seen;
And lasses chanting o'er the pail,
And youngsters sporting in the dale;
And ancient faith that knows no guile,
And industry imbrown'd with toil;
And hearts resolved, and hands prepared,
The blessings they enjoy to guard"

Illinois Advocate.

Art. CCCIV.—*Premiums Awarded by the American Institute of New-York.*

Not having space for all the premiums, we make a selection of those more intimately relating to agriculture and rural economy.—*Ed.*

ON AGRICULTURAL PRODUCTIONS.

To Abraham Varick, a silver medal, for a specimen of Hemp equal to the best Russia, from his Hemp establishment in Copenhagen, Lewis County, N. Y.

To Samuel S. Wood, a silver medal for specimens of very fine American Saxony Wool, grown by Gen. Thomas S. Davis, of Poughkeepsie.

To Miss Huldah Leach, Torrington, Conn., for a Lady's Grass Hat, of superior work and finer than any ever imported or manufactured in the United States.

To Garsed Raines & Co., of Frankford, Pa., a bronze medal, for superior specimens of Shoe Thread and Sail Twine.

ON SILK GOODS.

To John B. Gregory, 63 Watts-Street, a silver medal for a piece of Silk-Plush for Hats, and the best specimen of Silk Hats.

To Elisha Bloomer, 160 Broadway, a bronze medal for the second best Silk Hats.

To John B. Gregory, a premium for a superior piece of Gros de Nap, and a specimen of Fringe Velvet.

To Miss Shedon, Bond-Street, a premium for the best specimen of Silk Cocoons.

To Edmund Goldin, Mansfield, Conn., a premium for the best specimen of Raw Silk and Silk Fringe.

HATS.

To Orlando Fish, 198 Chatham-Street, a bronze medal for the best specimen of black Beaver Hats, and also a premium for the second best do.

To Henry Costar, 200 Broadway, a first premium for the best short nap Beaver Hat.

To Alonzo Alvord & Co., first premium for the best specimen of Nutria Naps.

To Henry Costar, a premium for the second best do.

To David Bedford, 194 Hudson-Street, first premium for the best satin Beaver Hat.

To Elisha Bloomer, 150 Broadway, first premium for the best satin Chapeau.

To Thomas Simms, 61 Canal-Street, first premium of a bronze medal, for the best drab Silk Hat, made of American silk.

To Joseph Harrison, 67 Canal-Street, first premium for elegant Ladies' Satin Beavers.

To J. G. M. Hunt, 100 Delancy-Street, second premium for do.

To Luke Davies, 102 William-Street, a premium for the best specimen and greatest variety of Caps.

MACHINES AND MODELS.

To Walter Hunt, 22 Asylum-Street, a bronze medal, for the most useful invention in mehanics exhibited —a flax spinner.

To T. E. Vermilye, 150 Reed-Street, for a lathe head and oval chuck.

To John Woolley, 100 Spring-Street, for a machine for edging tin.

To John Hill, 89 Sullivan-Street, for an ingenious improvement in the manner of applying tin to roofs.

To Evans & Parson, 2 Eldridge-Street, for a model of the hydrostatic suspension dock.

To Thomas Ewbank, for an ingenious hydrostatic safety valve for steam engines.

To John Y. Van Tuyl, Rahway, N. J., for an improvment in the application of wind power to mills.

MISCELLANEOUS.

To Miss Mary Agate, Sparta, Washington County, for superior Woollen Yarn.

To the Misses Watie's, of South Carolina, a silver medal, for the two best specimens of Raw Silk, *the production of that State.*

To Miss Clark, of Hampton Ct., aged 9 years, a premium for the best white Sewing Silk, 100 skeins, presented by Huntington & Dodge, Agents.

To Miss Foughton, of Petersham, Mass., for a dozen Palm Leaf Hats, Stevens & Palmer, Agents, 35 Burling-Slip.

To G. Chestermen, 76 Nassau-Street, for best silk Suspenders.

To Rockwell & Hinsdale, a premium for Scythes.

To West & Loring, 33 Eldridge-Street, a premium for improved patent Steelyards.

ART. CCCV.—*Miscellaneous, Original, and Selected.*

Lightning Bug and Spider.—The following anecdote has been communicated to the editor by a gentleman of distinguished standing at Washington, who is a very curious observer. This defensive faculty of a well known insect, is a new discovery, and the attention of some naturalists will probably be drawn to it.

"Walking on the back piazza, I noticed that one of the lightning bugs had become entangled in a spider's web. The spider instantly attacked him, and endeavored to secure his wings. The bug emitted his light very rapidly, the spider alternately attacking and retreating, until at length it appeared distressed, and sustained itself upon the web with difficulty, staggering and tumbling in its last retreat from the contest, until it gained the wall, against which it rubbed itself, as if to remove some offensive matter from its body. It appeared to experience great difficulty in retaining its hold on the wall, from which it frequently fell, suspended by one limb. At length it appeared to recover, and remained quiet. In the mean time, the bug ceased struggling, and merely emitted its light; the web soon gave way, and it escaped. These facts were observed by me with great interest, and occurred as I have represented them."

Mon. Am. Jour. of Geology.

Case of a Bee, Self-decapitated.—We paid a very interesting visit a short time ago, to a gentleman, who is a keen observer of nature, and whose great experience in apiaries has not only been productive of much curious information, relating to the economy of bees, but which has been directly useful to numerous persons, who maintain apiaries, in order to supply our markets with honey. This anecdote was related to us, whilst examining his well constructed hives.

"A large humble-bee, strayed near to one of his hives, and alighted near the entrance. Instantly he was attacked by great numbers of bees. One of them, seeking a favorable opportunity of lodging his sting under one of the rings of the humble-bee, made a fierce blow; but the sting striking upon the hard and bright corslet, glanced off, and as it is the habit of the bee in the act of striking, to bend the head towards the tail, the sting, upon this occasion, entered deeply into its own head. After many powerful exertions to extricate it, at length the entire head came off, and remained attached to the tail. The insect now gravely with its feelers, began to paw about his neck, as if to examine the nature of the accident which had occurred to it, spinning round, and feeling, and then stopping for awhile. In about twenty minutes the insect was exhausted and died."—*Ib.*

Large Fruit.—We have never seen apples of such enormous size, as have been brought to this market this fall. It has not been uncommon to see loads which would weigh from twelve to twenty ounces each; and in some cases, they have been selected which would weigh twenty-two, three and four ounces. A pear was raised in Pittsford, which weighed forty-nine ounces and a half. We doubt whether any part of the United States has produced fruit of the same variety, of greater size and better quality than old Genesee.—*Gen. Farmer.*

Cabbage Soup.—The liquor remaining in the pot in which cabbage, potatoes, and a sweet, fat piece of beef have been boiled, is a very pleasant soup. Most house keepers in the country throw it away or into the swill barrel.—*Ed.*

Experiment on Vegetation.—The celebrated chemist, Professor Dobereiner of Jena, has made the following experiments on the vegetation of seeds.

Two glass vessels were procured, each of the capacity of 320 cubic inches, and two portions of barley were sown in parts of the same earth, and moistened in the same degree; they were placed one in each vessel. The air was now exhausted in one, till reduced to the pressure of 14 inches of mercury; and condensed in the other, till the pressure equalled 56 inches. Germination took place in both nearly at the same time, and the leaflets appeared of the same green tint; but, at the end of fifteen days, the following difference existed:—The shoots in the rarefied air were six inches in length, and from nine to ten inches in the condensed air. The former were expanded, and soft; the latter rolled round the stem, and solid. The former were wet on their surface, and especially towards their extremities; the latter were nearly dry. I am disposed says M. Dobereiner, that the diminution in the size of plants, as they rise into higher regions on the mountains, depends more on the diminution of pressure than of heat. The phenomena of drops of water on the leaves, in the rarefied air, calls to my mind the relation

of a young Englishman, who, whilst passing through Spanish America as a prisoner, remarked that, on the highest mountains of the country, the trees continually transpired a quantity of water, even in the driest weather; the water falling sometimes like rain.—*Bibliotheque Univ.*

Drawings of Improved Cattle.—Mr. Fleet: I shall, in future, recommend to all our eminent breeders of cattle, sheep, and swine, and to those highly spirited purchasers who also encourage the arts, that some able artists be requested to attend at our public sales and exhibitions, in order to exercise their talent, in taking drawings on such occasions, as a means too to stimulate those who strive to benefit our country. How delightful to see the portraits of our good old patriots, embellishing the dwellings of the wealthy citizens! Then why should not the humble breeder and farmer claim the privilege of gracing his domicil and and lowly cot with the distinguished breeds of animals, selected by his *aid* and *skill*—the produce of *our soil.*

These things, we read, are done in the old country. Hence the great advantages derived from such praiseworthy examples. Surely you ought to claim some share, Mr. Editor, in publishing these important proceedings of the "at length awakened and determined energy of our American breeders and farmers."

Albany, Nov. 3, 1831. Cincinnatus.

Live Fences of the Three Thorned Acacia.—I feel a strong confidence, that a substantial fence may be grown from the honey or three thorned locust in six, or at most seven years, from the seed, and at a less expense than it will cost to build and maintain any good dead fence for two years. Upon this last point, however, I am not prepared to give precise data. Yet I will hazard a calculation. Twenty plants are amply sufficient for a rod, of course 1000 quicks will plant 50 rods. Let us assume this as the basis of our calculation. The 1000 quicks, at one or two years old, will cost $5. Three men will easily plant them in a day. Allow a day and a half every year for cleaning and clipping the 50 rods. This will require 9 days' labor in the 6 years. Estimate the labor at $1 per diem, and it gives for this item an aggregate of $12; add $5 for the quicks, and it makes a total of $17, or 34 cents per rod, as the expense of planting and growing a live permanent fence, proof against the depredations of boys and bulls. Treble this sum, and call the cost $1 per rod, what a pittance is the expense compared with the advantages afforded by a fence of this description, which shall protect your crops from depredation, and in a measure from the bleak winds of winter, and which is permanent in its duration. The lowest price of a post and board fence here is $1 per rod. It will last 12 years, and require 5 per cent. per annum to mend and keep it in repair. I have used no extra fence for protecting the hedge. I plant near an existing partition fence, and exclude the cattle while the growth is tender. Cattle will seldom eat browse while they have good pasture. J. Buel.

Albany Nursery, Oct. 20, 1831. [*N. E. Far.*

A good pickle for Beef and Pork called the Knickerbocker Pickle'.—Take 6 gallons Water—9 lbs. salt, coarse and fine mixed—3 lbs Brown Sugar —3 oz. Salt Petre—1 oz. Pearl Ash, and 1 gallon Molasses.

In making a larger or smaller quantity of pickle the above proportions are to be observed. Boil and skim these ingredients well, and when cold, put them over the beef and pork.—*N. E. Far.*

Silk.—The quantity of silk used in England alone amounts in each year to more than four millions of pounds' weight, for the production of which, myriads upon myriads of insects are required. Fourteen thousand millions of animated creatures annually live and die to supply this little corner of the world with an article of luxury!—*N. E. Farmer.*

The following stanzas by Miss Gould, from the Token for 1832, is one of the prettiest little conceits we have for a long while met with. It reminds one of Leigh Hunt's "Musical Box."

FROST.

The Frost looked forth, one still clear night,
And he said, 'Now I shall be out of sight,
So through the valley and over the height
In silence I'll take my way;
I will not go on like that blustering train,
The wind and the snow, the hail and the rain,
Who make so much bustle and noise in vain—
But I'll be busy as they!

Then he went to the mountain and powdered its crest,
He climbed up the trees, and their boughs he dressed
With diamonds and pearls, and over the breast
Of the quivering lake he spread
A coat of mail, that it need not fear
The downright point of many a spear
That he hung on its margin far and near,
Where a rock could rear its head.

He went to the windows of those who slept,
And over each pane like a fairy crept,
Wherever he breathed, wherever he stepped,
By the light of the moon, were seen
Most beautiful things! There were flowers and trees,
There were bevies of birds, and swarms of bees,
There were cities, thrones, temples and towers! and
All pictured in silver sheen! [these

But he did one thing that was hardly fair,
He went to the cupboard, and finding there
That all had forgotten for him to prepare,
'Now, just to set them a thinking,
I'll bite this basket of fruit,' said he,
'This bloated pitcher I'll break in three!
And the glass of water they've left for me
Shall 'tchick' to tell them I'm drinking.'

New-York Cattle Market, Bull's Head, Monday, November 7, 1831.—In Market 1025 head of Beef Cattle. We quote for a few pairs of extra fine oxen $6 3-4 per 100 lbs. Average $5 1-2. A few, say 250, unsold.

About 2500 Sheep and Lambs sold at prices varying from $1 75 to $4 per head.

Cows, from $25 to $35.

Swine, $4 to $4 1-4—Sales to day rather dull in consequence of some of our principal Butchers having availed themselves of the advantages of a very full market last week, to make unusually large purchasers.

Hay is rather on the decline—62 1-2 to 75 cents per 100 lbs. Last year at this time 62 1-2 was a good price for 112 lbs. [Reported for the N. York Farmer, by D. Dunn.]

[For the New-York Farmer.]

ART. CCCVI.—*The Country Farmer.*—No. IX.—*Boards of Agriculture, common faults of, and the proper remedy.*

MR. FLEET—It is a common remark, 'that no man should point out faults, without proposing a remedy;' which is almost as much as to say, that none but doctors may warn a neighbor of his exposure to disease, and none but lawyers of his liability to a lawsuit. We Farmers are no great hands for nice distinctions in such matters, and yet we sometimes think there are foolish things in very wise sayings, or rather, that there is less wisdom in them, than they pass for. There is certainly commendable pride, or there would be no laudable ambition, as there is also reprehensible, and illaudable. There is a pride of wisdom, and a pride of folly. When foolishness sets up itself for what is wise, either in literature, or science, or in any of the arts, as in Agriculture, the folly should be exposed, either with or without suggesting a remedy. So, when our late BOARD OF AGRICULTURE was in operation, and County Societies of Agriculture, under State patronage, a radical error in the plan of operations, or rather in the principle upon which Premiums were adjudged, went far toward souring the public mind, and the State patronage was withdrawn. Had the planners of that scheme listened, in season, to advice, or would they have received instruction from experience, and consented so to modify that plan as to obviate those objections, the whole might have continued in operation until this time. This is what I call foolish pride. Not learn from experience! How, else, do wise men learn?

The principle was, to grant premiums to the most extraordinary production, without any regard to the rest, by which foolish, or rich men, could, and did take the premiums, because the prudent, and the poor, and even our middling kind of men, many of them our very best Farmers, were looking at profit, as they should be. The true principle, that upon which the whole system should have been founded, would have been to grant premiums to the best productions, attended with the most profit. The poor, then, and the men in moderate circumstances, and the prudent, economical Farmers, could and would have been competitors, and successful ones; and the details of such success, collected and published, would have been highly useful and instructive. This was what was wanted, by the great mass of the Farmers, throughout the state, or such was the public opinion. The managing men, however, either had other views, or were too opinionated to receive instruction, and the plan went down, I hope not forever, because, with all its faults, it was, though indirectly, productive of some good.

There was another fault, Mr. Editor, perhaps a natural and necessary consequence of the first, or perhaps the first cause of that, which was, that practical men had little to do in supplying what was published, in those days, in relation to Agriculture. The real Farmers, wrote much less than they would have done, if satified with the principle of the plan, and our Farming, at least as it appeared on paper, was almost all theory, 'literary farming,' as I have heard it characterized, somewhere. So, that which produced the disgust, accelerated the downfall of the plan. If ever it is to be revived, the lessons of experience, it is to be hoped, will not be lost upon those who are to be its managers.

A *State Board of Agriculture*, properly organized, composed principally of practical men, duly impressed with the importance of actual labor, as a part of the business of Farming, without which a thorough knowledge of it cannot be acquired, would, under the direction of men of sense, be productive of immense benefit. It should be, however, and must be, in order to be useful, a Board of working bees, not of drones, nor of the butterflies of parties in power, nor of the men who are always ready to mount the *hobbies* of the day, and *ride them, all for patriotism!* Such patriots there are, *riders* of hobbies, always ready to pocket the dollars of the people, good souls, *solely for the public good!* The days of their glory may have gone by, as to one set of them, but others will come forth, on the spur of every occasion, and even some of the old class may be recuscitated, to *fill the papers with their own praise.* 'Will ye reject the counsels of your old leaders?'

When the late war broke out, all eyes were turned upon men who had seen something of the war of the Revolution, or who had a name in its annals, if only upon its muster-rolls. There was a halo of glory around the heads of some men of those days, and the public mind, suddenly startled into alarm, seemed to think—nay, it was told—that those were the *only* men, to stand at the helm, and direct the storm of war. Hull was sent out, did wonders, astonished every body, *fell*, at Detroit, and with him an army, of young and vigorous Republicans! Still the delusion was kept up, because the *fire* was not slackened, the fire of the goose quill, of the *pen* and the *press*, potent engines, in such wars as Republics are always engaged in, the *Wars of Editors.* Others of those men were called for, and Hampton, and Wilkinson, and Dearborn, and Lewis, and Armstrong, entered the lists, led on in arms, but still not to victory. By-and-by the Working Men came into command, and then came the tug of war, but with hard work, the harder for past misfortunes—and the cause of the country revived. The Soldiers were working men, and so are the Farmers; but, to do work, and do it well, they must have working men for officers. There is no such thing as standing before an army of bayonets, without bayonets, or leading Farmers in a career of Agriculture, without Farmers for leaders.

These long stories, Mr. Editor, about many things, may seem to you rather protracted; but there is somewhat of instruction in every thing of experience, none of which ought to be lost. I may entirely err, in my estimate of the reception of these Numbers; for I confess to you a belief, that, if copied into all the newspapers of the country, they will be attentively read, by such of my brother Farmers, as have a few hours of time for reading. They will even be laid aside, for long winter evenings, our way of managing such things, when some one will read, and the rest listen, perhaps while their fingers are employed upon some kind of work. Such was the practice of my grand-fathers' family, my father's, and such is, of mine. Such, also, was the practice of Washington, and of that Patriarch of our order, the Virginia Farmer, the neighbor, friend, and counsellor, of the counsellor of this nation, the Father of American Liberty. It is a trait, sir, in the character of the intelligent Farmer, one of the modes of the Farm House, by

which its Education is conducted. I should count it a high honor, to be usefully employed in such company, and so, I trust, would every one of your readers. If ambition, of this sort, is a sin, or if my estimate of ability to be useful, is grounded in pride, or folly, still I avow my purpose, and will be content to abide the impartial decision of my compeers. The honor of usefulness, is all the eminence that is worth seeking, and real merit is never ostentatious. Writing, without thought, is worse than useless. One object, in writing these papers, is, to call out the Farmers, by showing that they are the men who can best guide others, in the business of Farming, of which the conductors of the press seem hardly to be apprized.

September 8, 1831.

Errata, page 286, line 6 from bottom, for 'manage' read encourage. Page 287, 2d column, line 9 from end of paragraph 2, for 'have our food' read have their food.

[For the New-York Farmer.]

ART. CCCVII.—*Improved Short Horned Cattle.*

MR. FLEET—In continuance of the subject I recommend for insertion in your useful Repository, the following letter. B.

Carpenter's Hall, Lancaster, Pa. Jan. 22, 1827.

Dear Sir—After a period of nearly five years in breeding Short Horned Cattle, I venture to give my opinion, as far as my experience will allow.

The crosses between the Short Horned and our native cattle, and the continuation with the Short Horns until we get seven-eighths, or fifteen-sixteenths, of the blood, all appear to be well adapted to our climate, and are remarkable for the thickness of their coats.* Most of the Short Horn Cows, that I have seen, have all the marks of deep milkers. One of my half blood cows, by *Benton*, brought forth a calf in May last, and the calf for some weeks continued to suck but two teats, both on the same side of the udder, which was one half the milk. From the remaining two teats, I saw drawn regularly every day two buckets of milk, containing about three gallons each. This cow got nothing but the grass, and grazed with my other cows.

The next thing to be considered is, the fitness of these cattle for the shambles, of which I could not give an opinion, without seeing some of them slaughtered, as it would be impossible to say how they would cut; but as it regards their aptitude to fatten, and their early maturity, I give it as my opinion that they surpass every other breed of cattle that I have ever seen. My steers of three years old were perfectly fat last summer on grass, and some rising two years were quite fat. They are much more easily wintered, and will feed much better on straw and rough food, than any other breed of cattle. I am, &c. most sincerely yours,

H. A. CARPENTER.

* Long and close hair is one of the characteristic marks of the improved breed.

ART. CCCVIII.—*Fall Dressing Asparagus.*

About the beginning of November, when the tops become yellow, cut the whole off close to the ground, and deposit them in some convenient place to rot; hoe up and rake off from the surface of the beds and alleys all weeds, and turn them in with the tops, to rot also. Every other year at least, the beds would be the better of manure, and this is a good time to apply it. Cover the surface of your beds, therefore, one or two inches with well rotted short manure, or other compost, and point the whole lightly over the surface an inch or two deep. The alleys may be covered deeper with coarser manure—and the management of them is an essential point in the culture of asparagus, for from them the beds are continually to receive additional renovation. Therefore, after they are all well covered with good strong manure, they should be marked out by the line and spade, eighteen inches for the outside ones, and two feet for the others. Then at the end of one of the two outside alleys, its end to a length of two feet, and a depth of two spades, shovellings and all, must be taken out, and deposited opposite the end of the next two feet alley. The dung, also, to a distance of other two feet, must be removed to the end of the alley with that first removed—then the upper spit turned into the bottom of the first opening, and the fine shovelings below it thrown upon one half of the bed, to a thickness of one or two inches. On the top of the next spit will be the layer of dung deposited on the first trenching; and that, with the bottom spit, must be turned upon the top of the first opening. The next two feet of dung must be turned into the bottom of the second opening, as also the upper spade full of earth; the shovelings upon the top of one half of the bed, and so on, to the end. The next alley must be opened at the end where the first alley is ended, and its opening closes it; and is itself closed at the other end by the opening of the first. The shovelings between the first and lower spit of this, and all the two feet alleys must be spread alternately to the right and left, on one half of each bed, and their openings and closings effected in the same manner. The beds will then be in good order for winter. Yet if those who live near the shore, could add an additional covering over all, at least the beds, of rock or sea weed, to a depth of several inches, it would be of much advantage to the plants. Any kind of long litter would be good; still the beds will sustain no injury, although it should be inconvenient to apply either of the two last, provided the first operations are duly performed. And in whatever year the first operations are dispensed with, the second, of covering well, must not on any account be omitted.—*Wilson's Economy.*

ART. CCCIX.—*Address delivered at the Anniversary of the Albany Horticultural Society, on the 10th of September*, 1831. By REV. DR. LACEY.

Mr. President, and Gentlemen of the Society—

Amid the bright and salutary maxims of the Divine Government, the ordinance that no human achievement of importance shall be accomplished without *well directed* and *persevering industry*, stands conspicuous. In the administration of civil government, military operations, scientific and literary pursuits, moral and religious projects, and every benignant and useful enterprise, there are impediments to be remov-

ed, and difficulties to overcome, that render *labor* indispensable. From the moment God said to Adam, "in the sweat of thy face shalt thou eat bread, till thou return unto the dust," to the present time—without *labor*, and without *united* labor, no human performance has approached perfection. In the divine economy, the promotion of *industry* and of *social* intercourse, are evidently primary objects. We perceive in every instance of improvement, a combination of *individual* effort and *united* labor: corroborating the proverbs, "the *diligent* hand maketh rich;" and "in the *multitude* of counsellors there is safety."

The correctness of this statement is illustrated in the origin and progress of horticultural societies. The improvement and adaptation of soils—guarding against unpropitious climates—collecting and preparing materials—conducting experiments, and performing the various manipulations incidental to the growth of fruits and vegetables—demand, not only the labor of solitary individuals, but the experience, science, and wealth of whole communities. Had this branch of human industry been left to private enterprise, the world would now be destitute of some of its brightest ornaments. Gardens blooming with all the beauties of the vegetable kingdom, and imparting to the passing breeze the fragrance of every climate, would not exist. Many of the most beautifully cultivated portions of the earth would be a barren heath or a wild and tangled forest. The institution of horticultural societies, the appointment of corresponding functionaries, the union of individual resources, and the influence of emulation, have produced results in this department of human industry which solitary efforts can never equal.

Nor have improvements of this description failed to recommend themselves to the patronage of the most noble and the most wealthy, in all ages. The Paradises of Semiramis, the hanging terraces of Babylon, the Imperial Parks of Persia, the Hesperides of Africa, the Academus of Athens, the gardens of Rome, and the Kews and Kensingtons of England, bear testimony to the correctness of this statement. Henry the VIII, Queen Elizabeth, James the VI., Charles the I., William and Mary, and many others of royal dignity, as well as numerous individuals, less indeed conspicuous in rank, but equally illustrious in talent and enterprise, have been zealous and efficient patrons of Horticulture. In 1805, a Horticultural Society was instituted in London, under the patronage of Earls Dartsmouth and Powis, Sir Joseph Banks and other distinguished characters co-operating. In 1809, the Caledonian Horticultural Society was established at Edinburgh, and has since been fostered by several of the Scotch nobility and gentry, particularly the Duke of Burcleugh, the Earl of Wemyss and March, the Earl of Leven, Sir James Hall, and others equally distinguished. Nor have the sister institutions, established in this country, been suffered to languish for the want of patronage. Judging from my own feelings, and the indication of others, they are universally regarded with sentiments of kindness. The good they have effected has gained for them the public confidence, and excited hopes of increasing benefits. Nor will these hopes be disappointed. Horticultural societies involve principles inherently efficient. They possess, to a great extent, the power of ameliorating the qualities, and of increasing the quantity of fruits and vegetables, of adding almost infinitely to their varieties, of cultivating many of the most useful and potent medicines, and of supplying, with ornamental trees, our parks and promenades.

In a great degree the qualities of culinary vegetables are dependent upon circumstances. The texture of the soil in which they grow—their exposure to the action of the sun and of the atmosphere—the time they are planted—the mode in which they are cultivated, and the process of their preparation for use, exert a direct and controlling influence in the formation of their qualities. This influence, however, is detected, scientifically, only by observation and repeated experiments; and not unfrequently requires the lapse of many years and considerable expense; and when detected, is promptly communicated only by public bodies: individuals being inclined, generally, in subservience to their own interest, to withhold from the public eye the results of their most useful experiments. But societies are interested as much in communicating knowledge as they are in acquiring it. Hence results the great benefits of horticultural institutions. Possessing as they do, in the nature of their organization, the faculty of improving the qualities of fruits and vegetables, it is their *interest* to *exert* it—and they *do* exert it. We have witnessed, in the lapse of a few years, a decided improvement in this respect; and this improvement will progress in exact proportion to the increase of the industry, intelligence and resources of horticultural institutions.

These societies contribute not only to the improvement of the *qualities* of fruits and vegetables, but also to their *quantity*. By ascertaining the soils best adapted to given purposes, indicating the most successful modes of cultivation, and the best methods of gathering and keeping crops, their increase is abundantly promoted.

Nor is this all. The love of novelty, emulation, patriotism and personal interest, all combine to induce members of these societies to distinguish themselves, by introducing new discoveries and improvements.—Hence *varieties* of fruits and vegetables are yearly added to our gardens. Since the organization of the society I am now addressing, we have had accessions of this description, from every quarter of the world.—By the gifts of sister institutions, the labors of the scientific and enterprising proprietors of the "Albany Nursery,"* and the private and official efforts of other distinguished members of the society,† every portion of the globe has been rendered tributary to our comfort. Improvements in this respect, during the last fifteen years, in this ancient city, have exceeded almost the bounds of credibility. In the article of potatoes, the kidney, the pink-eye, and several other varieties, have been added to the list of our kitchen vegetables. New and better varieties of the turnip, parsnip, beet and carrot, render unnecessary a resort to the old ones. The brocoli, the delicate Savoy, and the vegetable oyster, may now be substituted for the coarse and less palatable cabbage. From the south of Europe and Asia have been obtained new and improved varieties of the melon, which have rendered the old ones of no value. The tomato, the okra and the egg plant, are delicacies which, a few years since, were utterly unknown among us, but which are now,

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* Messrs. Buel and Wilsen.

† Messrs. Delavan, Slingerland, Denniston, J. T. Norton, Spencer Stafford, &c. &c.

or soon may be, obtained in great abundance. Several species or varieties of the squash, equal if not superior in flavor to the pumpkin, have been brought from South America and the eastern continent. Our fruits also have been greatly multiplied. We have all the fine varieties of the strawberry from Europe; also the gooseberry, the currant and the raspberry, in the greatest perfection. We have the best species of the grape from every quarter of the world; and not simply in stinted quantities, but flourishing in large vineyards. A respected citizen,‡ with a zeal and enterprise rendering him a benefactor to his country, has extensively cultivated the best flavored and the most productive species of this fruit. In less than six years, the worthy proprietors of the "Albany Nursery" have introduced from the London horticultural establishment, and other principal gardens in England and France, more than two-hundred and fifty new varieties of the apple, the pear and the plum.

But horticulture not only contributes to the improvement of culinary fruits and vegetables; but has been, and, no doubt, will continue to be, an important auxiliary to the healing art. The Botanic Gardens at Chelsea, Oxford, Cambridge and Liverpool; the gardens belonging to the Dublin Society and Trinity College, and the Royal Botanic Garden of Edinburgh, indicate the high estimation in which horticulture, in connexion with the healing art, has been held in those enlightened countries. The most eminent physicians, both at home and abroad, have been zealous advocates for public botanical establishments; and though the utility of this plan, under our government, may be justly questioned, yet the benefit of cultivating, for domestic use, medicinal plants, whose properties are well known, and the preparation of which is not difficult, cannot be doubted.

In my opinion, however, horticulture is still more valuable as a source of ornament.

"A tree," says an able writer, "in itself is the noblest object of inanimate nature; combines every species of beauty, from its sublime effect as a whole, to the most minute and refined expression of mind in the individual beauty of its leaves; exhibits that uniformity and infinite variety which constitutes the essence of relative beauty; and the natural expression of individual species are as various as their forms and magnitude, their utility to man, and their situations, soils, climates and other general and accidental circumstances of which they are indications." Nothing, certainly, contributes more to rural ornament, than the tasteful disposition of trees. Architecture, painting, statuary, and all the fine arts, are infinitely less beautiful than rich and variegated foliage, tangled and luxuriant thickets, decorated lawns, and extensive avenues. These, in the absence of artificial embellishments, will not fail to be satisfactory; but for the want of them nothing can atone. A residence without trees, in defiance of every other ornament, presents a cheerless and barren aspect. Were the most attractive places, of which the world boasts, divested of their umbrageous beauty, they would instantly cease to delight. Instead of the enchantment and witchery they now possess, they would be uninteresting, if not repulsive. The Battery, the Boulevards, and the classic cities of Oxford and Cambridge, are vastly indebted, for their magnificence, to the venerable trees with which they are adorned. Speaking of the most attractive parts of Paris, says a fine writer, their beauty is much heightened by the detached villas and palaces they contain, surrounded with gardens, in which the lilac, the laburnum, the acacia, and other ornamental trees, are most conspicuous."

And from the enterprize, industry, and taste of the founders of the "Albany Nursery," this country will be able, in the course of a few years, to vie, in the use of ornamental trees and shrubs, with any portion of the world. Their additions are numerous and exceedingly beautiful. In the course of a few years, the varieties of their annuals have been increased threefold, and their perennials have been more than quadrupled. Native and exotic trees, shrubs, and almost every thing of the ornamental kind, are to be there had, in a healthy and vigorous state; and on moderate terms.

From this hasty and imperfect review of the benefits of Horticultural Societies, I am induced to hope they will continue to derive from the public liberality, that patronage their utility deserves. By the accession of active and efficient members; the attendance at their periodical meeting, of influential and intelligent citizens; the assistance, in the way of observation, experiment, and correspondence, of the learned; they will, I trust, continue, with increasing usefulness and efficiency, their patriotic labors:—There is no secular institution, in this city, which deserves the public patronage more than the society to which I now allude. Its improvement of fruits and vegetables, grateful to the palate; of plants and flowers, delightful and captivating to the eye; and of trees ornamental to our court yards and promenades, have imposed upon the patriot, the man of taste, and the epicure, lasting obligations to be thankful. As an humble individual, not belonging to the Society, I beg in conclusion to tender to its members, my unfeigned thanks for the permanent and increasing benefit they have conferred upon the public by their united and well directed enterprise.

‡ Major H. A. Fay.

To the Editor of the New-York Farmer.

Sir—By inserting the following, taken from a September number of Cobbett's Register, you will probably interest at least a portion of your readers.

New-York, Nov. 11, 1831. Your's, &c. G.

Art. CCCX.—Challenge.—*Indian Corn in England.*

To all the Yankees on the Face of the Earth.

I, William Cobbett, of Kensington, old England, hereby offer to bet any Yankee £100, the conditions of which bet are as follows. First, that the said Yankee shall plant an acre of corn next spring in one piece, and that I will plant an acre of corn in England, that the said Yankee shall have his acre standing and growing in some place within ten miles distance of the Court House of New-York, that when he shall declare it to be ripe, Dr. Mitchill of New-York, his countryman, or in case of inability in him, Mr. John Tredwell of Long Island, shall go and ascertain from the measuring of a square rod, impartially taken, how much corn he has standing upon his acre, and that the said Yankee shall appoint one of his countrymen residing in England, to come in like manner, and take an ac-

count of the amount of my crop, that the parties shall communicate to us severally the amount of the crop in America, and the amount of the crop in England, that if the American judge's account of the Yankee's crop exceeds that of mine, Dr. Mitchill or the other judge shall draw upon me for the £100 through Mr. John Harris of New-York, who will pay the bill, that if the contrary be the result, the said Dr. Mitchill, or Mr. John Tredwell shall see the £100 paid to Mr. John Harris on my account.

That there may be no dispute about big corn or little, and the difference or amount of crop, or the difference there is in great corn or small corn in filling the bushel, the question shall be decided by weight of shelled corn, that is to say, a rod of ground shall have the ears taken off, husked and shelled upon the spot, and then weighed, and the question be decided by the weight.

Now I am perfectly serious in this challenge, and I do it to convince the people of the United States that we can grow as good corn as they, and even greater crops. They have always said to me that *corn* was the only thing wanted to make *England* the finest Country in the world, and this is to convince them that we have got it. I desire Mr. George Woodward of New-York to put this into the American Newspapers. Another condition is that any one accepting the challenge must communicate that fact and declare the spot where the acre of land is to Mr. Woodward before the first day of May next; and Mr. Woodward must be satisfied that the party if losing, will pay the 100£ at once.

The Umpire appointed to judge of my crop, must be one that Dr. Mitchill, Mr. Tredwell, or Mr. Woodward will be answerable for in point of integrity.

Sept. 24, 1831.

Remarks.—We give the above a place in our columns, not to encourage betting,—but as an article of intelligence. Mr C. could scarcely have chosen, in this State, a circle of ten miles radius in which there is less corn ground than around this city.

An English gentleman informs us that Mr. Woodward planted some of Mr. Cobbett's corn in his garden in Jay-street, in Brooklyn, Long-Island, and found it to ripen much sooner than our common Indian corn. Mr. Woodward is very positive that a crop of corn could be fully ripened, planted after the harvesting of oats. Mr. Cobbett's corn is of the dwarf varieties, and was obtained from France.—*Ed. N. Y. Farmer.*

Art. CCCXI.—*Importance and Expediency of Agricultural Societies in the State of New-York.*

By the Editor. [Continued from page 296,]

The butchers of Boston have estimated the improvement, within a few years, in the fat cattle brought to that market, to be 10 per cent. This improvement is more particularly observable in the cattle brought from sections of the country under the influence of agricultural societies. Suppose the same degree of increased productiveness should be effected in every department of husbandry in a particular state, in Massachusetts for instance, it is easy to perceive the augmented income of farmers, and the additional profit, pleasure, and beauty of farming. Admitting that Massachusetts has within the last ten years, advanced 10 per cent in its agricultural productions, we are willing to hazard the remark, that the most enlightend and successful agriculturists of that state, are of the opinion that there is room for an additional improvement of fifteen to thirty per cent. What improvements, then, is New-York susceptable of, when a majority of the farmers shall be associated for the purpose of attaining to the highest degrees of culture? How augmented would be the resources of our extended and wealthy growing state.

If a farm is rendered ten or twenty per cent more productive, so much is added to its value. The way to accomplish this generally is, to circulate information to awaken zeal, excite emulation, and to stimulate to high and laudable degrees of excellence in every department. *(To be continued.)*

Art. CCCXII.—*The Cork Tree.*

The Cork Oak is not so large a tree as the common oak. There are several varieties: a broad leaved and a narrow leaved, which are evergreens; beside other varieties which shed their leaves. The broad leaved evergreen is, however, the most common, and it is the one from which the cork of commerce is chiefly obtained. It is mentioned by Theophrastus, Pliny, and some other ancient naturalists as being well known in the days of the Greeks and Romans,—the latter of whom used it for a variety of purposes, and among the rest for the stoping of bottles. They used it for floats to their nets and fishing tackle; for buoys to their anchors; and when Camillus was sent to the Capitol, through the Tiber, during the siege by the Gauls, he had a life-preserver of cork under his dress.

The Cork Oak is indigenous, or at least abundant in Portugal, Spain, part of the south of France, and Italy; on the opposite coast of the Mediterranean, and the Levant. Spain and Portugal supply the greater portion of the cork which is consumed in Europe. The cork is the bark which the tree pushes outwards, as is common to all trees; but here the outer bark is of a larger quantity, and is more speedily renewed. When

removed, there is a *liber*, or inner bark, below it, and from this the cork is re-produced in the course of a few years,—while the tree is said to live longer, and grow more vigorously, than if the cork were not removed. The first time that the cork is taken off, is when the tree is about fifteen years old. That crop is thin, hard, full of fissures, and consequently of little value; and the second, which is removed about ten years after, is also of an inferior quality. After this, the operation is repeated once in eight or ten years, the produce being greater in quantity, and superior in quality, each successive time. According to Duhamel, a cork tree thus barked will live a hundred and fifty years.—The months of July and August are those which are chosen for removing the cork. The bark is cleft longitudinally, at certain intervals, down to the crown of the root, with an axe, of which the handle terminates in a wedge; and a circular incision is then made from each extremity of the longitudinal cuts. The bark is then beaten, to detach it from the *liber;* and it is lifted up by introducing the wedged handle, taking care to leave sufficient of the inner laminæ upon the wood, without which precaution the tree would certainly die. The bark being thus removed, it is divided into convenient lengths; and it is then flattened, and slightly charred, to contract the pores. This substance is the rough cork of commerce; and it is thus fit to be cut into floats, stoppers, shoe-soles, and other articles of domestic use, by the manufacturer. The cork of the best quality is firm, elastic, and of a slightly red color.

Cork burned in vessels of a particular construction gives the substance called *Spanish Black*

ART. CCCXIII.—*Interesting, Scientific, and Miscellaneous Selections.* By the EDITOR.

Test of a Good Gardener.—Our test for hiring a gardener would be, his being a reader; for, in the present state of the art, it is quite impossible to be a good general gardener without not only the habit of reading, but of reading a good deal. In many places, in the interior of the country, good gardeners are not easily obtained, unless it be from the London nurseries; but it is to be hoped that the number of good gardeners will be every where increased through the instrumentality of the local botanical and horticultural societies. That at Manchester, having a regular school for teaching young men, promises to do much in this respect.—*Loudon.*

Coal Smoke serviceable to Vegetation.—By the gardener of Miss Parsons of Dudley, we were informed that pines grow remarkably well in the immediate neighborhood of works producing immense quantities of coal smoke. The pines not only grow well, he says, in such situations, but the very considerable quantity of soot which is continually falling on them, and which slides down into the axils of the leaves, effectually prevents the growth of the mealy bug, or, indeed, of any other insect. The health of his plants, and their entire freedom from insects, notwithstanding the sooty appearance of the lower parts of their leaves, seem to corroborate his opinion. The fruit grown, we can assert, is equal in flavor to any we have ever tasted. If this opinion should be confirmed by experience in other places, every innkeeper and confectioner, as well in London as in the country, may grow his own pine-apples on the top of his own house, heating a cistern of water, placed under them, by the smoke of the chimneys.—*Ib.*

Bérberis dulcis, Sweet-fruited Berberry.—An evergreen, shrubby, beautiful species, lately introduced from the Straits of Magellan, where its berries are used as we use gooseberries, both green and ripe, for making pies, tarts, and other sweetmeats or preserves; for which purposes they are excellent. The berries are abundantly produced, and when ripe are black and of the size of a black currant. It will, doubtless, be quite hardy; and its elegant, nodding, bright yellow flowers, which are produced singly along the branch, and not in bunches, added to its very useful fruit, will render it a valuable addition to our shrubberies. In its native state it grows from 4ft. to 10ft. high. It was collected by Mr. Anderson, botanical collector in Captain King's expedition to the Straits of Magellan, and to other parts of South America. Mr. Anderson states that B. dulcis extends from Chiloe to the Straits of Magellan, but that the plants in Chiloe are larger and deciduous. From these two characters the plants in Chiloe will, doubtless, prove of a distinct species. Both the kind from Chiloe and B. dulcis are now growing in Mr. Lowe's nursery, Clapton, where B. dulcis flowered in March last, but under glass, and where also another species, that pretty little dwarf evergreen shrub, B. empetrifolia, has recently blossomed. B. dulcis may, doubtless, be readily increased by layers, by inarching on B. vulgáris, or by young cuttings planted under bell glasses in pots of sand. A mixture of sandy loam and peat will be the fittest soil for it.—*British Flower Garden.*

Remarkable conduct of a Horse.—Mr. Israel Abrahams, in the vicinity of this town, has a horse that will of his own accord, pump a sufficiency of water for all the other horses on the farm. We have witnessed him, when turned loose into the barn-yard, go directly to the pump, take the handle between his teeth, and throw the water with as much force, and almost as much regularity, as a man would, until he would pump enough for his companions and himself, when he would drink, and deliberately retire. No pains were ever taken, or means used, to learn him a business which proves a great accommodation to himself, and relieves his owner of considerable labor.—*Centreville (Ind.) Times.*

Destruction of Weeds in Garden Walks, &c.—Take 100 lbs. of water, 20 lbs. of quick lime, and 2 lbs. of flour of sulphur; boil them in an iron vessel, and after it is settled, draw the clear part off. When diluted as may be required, and paved and other walk, well sprinkled with the preparation, no weeds, it is stated, will appear for many years.—*Recueil Ind.*

New Method of Multiplying Dahlias.—Some dahlias belonging to M. Jacquemin, having been injured by the wind, in the first days of June, and some branches broken off, he placed them in the ground, in hopes of developing the flower. This did not take place; the vegetation languished, but the plants appeared good, and being carefully taken up, were found furnished with tubercles. Hence a new means of multiplying these flowers, and the illustration of a curious physiological fact.—*Jour. Roy. Inst.*

Want of Forethought in the Lower Animals.—The Barbary ape, (Macacus Sylvanus, Lac.) which, though

a native of Africa, has established a colony on the Rock of Gibraltar. Here it is occasionally so cold in winter, that these poor apes are fain to huddle about any chance fire that may be lighted out of doors and left burning; but though they are seen sitting close to the dying embers, they have never been known to add a single chip of fuel to continue the fire.—*Scott. Intell. Phila.* iv. 1.

Smell of Paint Removed.—The offensive smell of oil cloths, varnishes, and paints, are said to be removed by chloric fumigation in a close room.—*Journal of Geology.*

Remedy against Flies.—The odour of the oil of laurel is not disagreeable, and the stalls of butchers rubbed with it, are said not to be frequented with flies. The frames of glasses and pictures might be preserved in this way.—*Ib.*

ART. CCCXIV.—*Miscellaneous, Original, and Selected.*

American Elm.—MR. FLEET: Sir, please to accept of two Trees of the Ulmus Americana, which I have raised from the seed, and sent you by Mr. Fisher.—The mode of propagating the Elm from the seed, I believe is not generally known in this country. This stately tree, too well known to need a description, flowers in April, has commonly from six to eight stamens; they are small, of a dull purple color, and grow in bunches or slender footstalks; the seeds are contained in a flat, oval, winged capsule or samara, which is ciliated at the edge—the seed in the flower in a short time comes to perfection and falls to the ground; then is the time to collect them, and plant the flowers in beds or rows prepared for them, and slightly cover them with earth. They will soon vegetate, and will grow from four to six inches high the first season they are planted. The trees which I have sent you, will be four years old next May. In sentiments of esteem and respect, I remain your

Obd't Humble Servant

Newburgh, Nov. 8, 1831. DAVID FOWLER.

Sugar from Potatoes.—Silliman's Journal for October, contains a notice of an attempt made at Sacket's Harbour to manufacture, on a pretty large scale, sugar and molasses from the Potatoe. Mr. S. Guthrie, a practical chemist of that place impressed with the idea that in towns remote from the Atlantic coast, sugar might be made from potatoes cheaper than it could be brought from the sea-ports, induced one of his neighbors, a Mr. Patter, to construct machinery for prosecuting the business. An ingenious apparatus was devised for the purpose, and 3500 bushels of potatoes were transformed into saccharine matter. No chrystallized pure sugar has yet been obtained, but the process has resulted in the production of a kind of molasses, a sample of which has been forwarded to Mr. Silliman, who says of it that it is as rich as that from the sugar maple, and apparently pure syrup, with only a slight peculiarity of taste to distinguish it from the best cane molasses. He is of opinion that it will yet afford chrystallized sugar. Should the experiment succeed, our friends the Louisiana cane planters, will be in more danger than from a repeal of the duty on sugar. A potatoe field will be of more value than a cane plantation, and the northern farmer will make his own molasses out of the very root with which he fattens his pork.—*Eve. Post.*

Peach Trees.—Mr. B. Nabson of this town, who has devoted much attention to improvements in agriculture and horticulture, has this year raised peaches of a large size, and as rich in flavor as any to be found in the Philadelphia market. His trees are in a poor, gravelly soil, and sheltered from the northwest wind. Peach trees grow too fast in a rich soil, and do not bear fruit. They do best in a warm sandy, or gravelly light soil, protected from cold winds. In the spring, it is believed to be a good plan to throw straw around the roots of the trees, to prevent the frost coming out too soon. After the rising sap starts the buds, a hard frost will kill them and the branches they are on. With proper care, this luscious fruit can be raised by almost every one who has a farm or a garden.—*Kennebec Journal.*

Chloride of Lime to destroy Mildew.—Judge Buel, in the N. England Farmer recommends the use of chloride of lime as a preventive of mildew. He tried a weak solution on a blighted pear tree, and restored it to a healthful condition.—*Ed.*

Receipt for Curing Bacon.—Hearing several complaints last winter from good house keepers that their bacon had not sufficiently taken the salt on account of the very cold weather, perhaps it may be useful to revive a practice which our usually warm winters have caused us to forget, or rather neglect; it is, that in severe weather, and particularly when the meat is frozen, to make the salt hot. Put a large pot on the fire with salt in it and stir it often, otherwise it will burn; but let it be as hot as the salters can just bear their hands in, and rub the meat with it well, and pile it or put it in hogsheads, by which means it will take the salt well, and the salt petre will show equally all through. This was effectually proved during the uncommon severe winter of 1831, by an old HOUSE KEEPER.

N. B. If there is a large quantity of meat to be salted, put on two pots with salt, as it ought to be done as quickly and as hot as possible.—*South. Agriculturist.*

Distroying Insects by Steam.—About twenty years ago, one of Sir Joseph Bank's hot-houses at Spring Grove was fitted up with steam-pipes instead of the common flue; and with proper valves to allow the escape of steam when wanted, for the purpose of refreshing the plants. The plants were completely covered with the insects called the white bug; but after steaming the house about fourteen days (not with any idea of destroying the insects) they wholly disappeared. From this circumstance I was induced to construct the apparatus of which you have heard. This invention was described to the Society of Arts here, about the end of its last session in 1830; but I am not aware of its report having been read. I may mention to you, that even although steam from water should be found ineffectual or tedious in its operation, yet, were it possible to destroy the insects by aqueous poison, it can be applied only in the form of steam.—*James Grieve. Edinburgh, Nov.* 4, 1830.

Cotton Swiming Jacket and Life Preserver.—We have lately been presented with a very simple and efficacious Life Preserver, now in use at Yarmouth, and which from being very cheap and easily used is worthy of notice. The Life Preserver is neither more nor

less than a double shirt with sleeves, made of strong close cotton and fitted with a wooden pipe or bit of reed, by which to inflate the cavity contained between the double folds. The shirt reaches down to the lower ribs where it is drawn tight around the body, and is put over the ordinary dress in cases of shipwreck or sudden danger. In bathing it is put next the skin. The texture of the cotton is not sufficiently close to prevent the air from blowing into it, or from passing through when dry; but the moment it is immersed in water, the threads swell so much as to render it impervious to both air and water. It may, therefore, either be immersed in water before being used, or be put on dry, and inflated on going into the water. Without seeing it, one could scarcely believe the completeness of the security afforded by the simple cotton cloth. We have tried it in a warm bath for forty minutes under very heavy pressure, and at the end of that time it was as tight and buoyant as at the beginning. At Yarmouth, jackets of this kind are frequently used in going out to wrecks or in bad weather; and to incipient swimmers, they must be very valuable, as they may be worn without any incumbrance, and inflated only when danger threatens, or when fatigue comes on.—*Scotsman.*

Ice Houses.—A writer in the N. E. Farmer, gives the following directions for the construction of an Ice House:

"I have an ice house which is built on a gravelly knoll. I dug a pit, say from 8 to 12 inches larger than I intended the frame, and about 8 feet below the surface, and with the gravel, which came out of the pit, I raised it about 2 feet. My frame was 10 feet long, 8 feet wide, and 10 feet deep. I planked it up with 2 inch hemlock planks, and filled the space on the outside, which was from 8 to 12 inches, with tan, rammed it down as fast as I planked it up till I came to the top of the frame. I then put on rafters of joist 4 or 5 inches square, and lined them and filled the space with tan, as tight as it could be rammed in, and then shingled the roof. The ends were boarded up, with a door at each end, for the convenience of filling the house. My house holds about 6 cords. I fill it with square pieces of ice, as close as I can pack them. I put nothing between the layers of ice, nor on the sides, nor do I break any in pieces to fill up the spaces except broken pieces that will not make good stowage. I have filled the house to the top of the frame. I then fill the roof with shavings, and ram them down as tight as I can. I have had no difficulty in keeping my ice, and have spared as much as we have used, and have often ice in the house, when we clear it for filling afresh. I think shavings are better than straw, as they will not rot so soon by the dampness. I go to the ice house at any time of day, when ice is wanted. My ice house has no drains to it. Under the plank at bottom I rounded out a place lengthwise, about a foot deep, sloping towards the middle like an egg, cut in two lengthwise, which I think is sufficient to receive all the water that will waste from the ice."

Mallet's Patent Iron Wheelbarrows are remarkably light and strong articles, well deserving the attention of gardeners, new ground workmen of every description, and persons intending to emigrate. They take to pieces, and pack in very little bulk. They are manufactured in the neighborhood of Dublin, and sold remarkably cheap, considering their great strength and durability (24*s.* delivered in London.) When a poor-rate is obtained for Ireland, which, we trust, will be the case in a session or two at farthest, we hope hundreds of thousands of these barrows will be mounted for the public works that must then be set a going to employ the population.—*Loudon.*

On stopping Vines from bleeding.—Let the part bleeding be forced into a sound potato; for if any of the skin of the potato has been rubbed off, the sap of the vine will soon find its way to escape, and the vine will continue to bleed; but if the potato be free from any bruise, it stops the vine from bleeding.—*M. Sauk*

Botany.—The botanist attached to a recent scientific expedition from Russia to the Brazils has brought from Rio Janeiro, for the botanic garden at St. Petersburgh, a collection of above 1000 living Brazilian plants, as beautiful as rare, and among which are many never hitherto seen in Europe. This rich acquisition, joined to the young plants which the garden has already obtained from Brazilian seeds, will soon be sufficient to fill a large green house, where the lovers of botany in the 68th degree of N. latitude may form an idea of the beauty and variety of the flora of a vast country situated between the tropics.—*London Literary Gazette.*

New Species of Elm Tree.—Mr. David Thomas describes, in Silliman's American Journal for 1830, a new species of elm, under the name of Ulmus racemosa. Its specific characters are, flowers in racemes; pedicles in distinct fascicles, united at their bases. It is a tree, and its lower branches have irregular corky excrescences. It is a native of the Cayuga country, in the state of New-York, and of the adjacent country.—*Ib.*

The Maclura aurantiaca—In consequence of your desire to be informed more particularly respecting the Maclura, I wrote to the deligate in congress, A. H. Sevier, from the territory of Arkansas, where it abounds, and he promptly answered my letter. He says:—"I never knew the fruit to be used as an article of food. The timber is valuable on many accounts. It is, perhaps, the most durable wood in the world, and, I think, for ship-building preferable to the live oak. It is also valuable for furniture, being capable of receiving the finest polish, and, when seasoned and exposed to the air, it assumes a complexion not unlike mahogany. It is also an esteemed dye-wood. One of its trivial names is yellow wood. From its toughness and elasticity the Indians make their bows of it; and hence it is also called bow wood." In the report of Messrs. Dunbar and Hunter, of their voyage up the Red River and Wasita, they say, "the color of the fruit, which had fallen before maturity, though it appeared faded, still retained a resemblance to pale gold. The tree, in its native soil, when laden with its golden fruit, nearly as large as the egg of an ostrich, presents the most splendid appearance."—*Loudon.*

New-York Cattle Market, Bull's Head, Monday, November 14, 1831.—Including those unsold last week about 1000 head at market—600 head sold at $4 to $6 25—Averaging $5 50.

Sheep 2500—sales dull and prices low.

Cows—but very few offered.

Hay, 62 to 75 cents per hundred. [Reported for the N. York Farmer, by D. Drew.]

[For the New-York Farmer.]

ART. CCCXV.—*The Country Farmer.*—No. X.—*Of the proper extent of Farms, and of the advance of Knowledge in Husbandry.*

MR. FLEET—Farming operations, like many others, are often attempted on too large a scale for the means of the operator. There is no fault more common than this. Our Farms are almost all too large, and yet it is useless, perhaps, to speak of it, except to remind those who have small Farms of the fact, and that they can, if they manage their business well, make more clear profit than is made by those who own too much land. It is all idle to pretend to lay down exact rules for the number of acres, in each Farm; but this may be assumed, that no Farmer should occupy more land than he can cultivate, thoroughly, and these keep in a constant state of improvement, as to capacity for crops. Its extent, will then depend on the ability of each occupant, not only as to physical force, but this combined with other considerations, such as every Farmer can estimate for himself. In other cases, he would do this safely; but as to quantity of land, each one desires more! I have known many a Farmer made absolutely *poor*, by *owning too large a Farm;* and others to become *rich*, by owning *too small* a Farm! If it were not for giving offence, instances, of both kinds, might be cited here. To avoid this, let me invite every one to task his own recollection a little, and produce instances from his own observation. When he shall have done so, let each be a lesson to him. A 'thrifty Farmer,' generally persuades himself that he must be buying more land, a piece from this neighbor, and from that; and as readily persuades himself that those who sell, must be unthrifty. Both positions may be true, and both may be false. The very idea, to most Farmers, of selling off pieces of their land, is of the extremely repulsive kind, a sort of damper, mortally dreaded. Yet I have known men who have had the courage to do it, because they thought it best, and who have never had occasion to regret having done so. In all neighborhoods, there are some men overmuch-wise, as to the business of their neighbors. Such men grow fat upon it, whenever a Farmer sells off some of his land, never once doubting, that he who does so, must be growing poor. Such are some of the reasons why our Farms are almost all too large, and will be, till diminished in size by pure necessity. Small Farms, lead to improving Husbandry.

The prevalent fault of our Agriculture, is, perhaps, a disposition to run over too much land. Dung may be spread so thin, as to lose all good effects from it. So also may labor, by which it costs more than it comes to. A guinea, in the pocket of a Farmer, is not only a solid substance, but will exchange for any other that he may chance to want, as will gold, in coin or in bullion, because the representative of value of substantial things, connected with the real wants and comforts of life. When beaten out to gold-leaf, however, though still gold, spread amazingly thin, it passes into an article for use in the fine arts, the value of which depends not so much on the real, as the imaginary wants of life, and its value is very uncertain. I often see inexperienced persons, calling themselves Farmers, perhaps 'great Farmers,' because the owners of great Farms, beating their gold into 'leaf,' to be wafted away by the winds! Though such men often set themselves up for teachers of others, as writers for the Journals, Mr. Editor, yet we real Farmers have none the less pity for their mistakes, of which nothing but experience can convince them. Full of theory, but very empty of practice, such heads succeed best in Farming on paper, with paper pigs, as mentioned before, and their immense crops of turnips, and wool, all vastly profitable, with other things, 'grown' on the Farm, all paper, and a paper Farm! If there were less reality, in this grouping, it would be still less ludicrous, for it is 'too true to make a jest of,' as every one knows who has kept pace with our 'march of mind,' on paper, in Agriculture. The improvement, however, has been steadily progressing, and the general state of this 'art-of-all-arts,' as the Printers call theirs, is vastly superior to what it was, some 50 years ago, and is even improving, every year. Yet not so much by 'fits and starts,' as many people seem to imagine, but by steady effort, solids acting on solids, minds on minds, grave, sedate, calculating, seeking certain profits, such as we Farmers are principally concerned about. Speculations will not do for us, your 'slow and sure' men, the real back-bone of social, civil, and moral order.

Society, with all its various connexions and dependencies,
However artificial, in many of its features and distinctions,
Is still a Chain of Natural, as well as Social Order,
Made up of many Links, each on another one depending,
And all, directly or indirectly, on Mother Earth.
From her bounty, comes all the aliment of life, sustaining all,
Each for some end, in various stations and relationships;—
Some near, as Sons, or Heirs, and some as Servants,
More or less remote, for various offices, yet no one self-supported.
We, as Farmers, Sons, live in her immediate presence;—
And 'tis our honored office to take her first commands;
Obey them, gain her favor, gather her choice fruits,
And hand them round to others, Servants in attendance,
For general distribution.
Such, then, is FARMING. And such are we, Farmers,
In charge of *the Estate*, for all the households of the world!
Heirs, Servants, Stewards, all, must look to us!
We are the chosen Executors of a living Mother's Will,
That bountiful, neglected Mother, whose smiles bring plenty,
With happiness, and joy;—whose frowns bring want,
With misery, disease and death!

ART. CCCXVI.—*On the Culture of the Pear, with Remarks on Mr. Hiver's Practice.* By Mr. B. SAUNDERS, Nurseryman, Jersey.

One of the most distinguished Nurserymen in this vicinity has recommended us to insert the following

from Loudon's Magazine, as embracing a list of remarkably fine Pears.—*Ed. N. Y. Farmer.*

Sir—I hope that Mr. Hiver does not consider the observations I made on his article on pears, in vol. vi. p. 53., as emanating from a spirit of criticism, or a wish to condemn his system; on the contrary, my object was to obtain further information on a subject in which I take much interest, and with which he appears to be so thoroughly acquainted.

Residing, as I do, on an island celebrated for its production of fine fruit, particularly of the pear kind; where every cultivator, to a certain extent, prides himself in rivalling his neighbors in his productions; and where, from our contiguity and constant communication with France and other parts of the continent, we have frequent opportunities of obtaining new sorts; I have, within the last twelve years, been enabled to prove the qualities of a vast variety, as well as to study their peculiar habits and modes of cultivation.

To be minute in the detail of the relative merits of each sort would create matter too voluminous for insertion here; and, at the present moment, would be a task that would infringe too much on my professional occupations. According, however, to promise, I subjoin a list of such sorts as I deem worthy in every respect of cultivation; classing them as summer, autumn, and winter fruits.

With regard to Mr. Hiver's practice, I wish to state that I differ from him in his mode of shortening the breast wood in the summer to two or three eyes, which occasions fresh shoots, and impoverishes the tree to no purpose. A better plan is, either to displace them entirely when young, or, as I have sometimes practised on very luxuriant trees where there was a deficiency of fruit spurs, to break, in the month of July, the foreright shoots nearly through to within five or six eyes of the bottom, leaving the upper extremity suspended six or eight weeks. This impedes the communication of the two saps, and prevents a second shoot; the eyes at the base most frequently forming themselves into fruit-bearing spurs for the following season.

Your worthy correspondent seems also to condemn the winter pruning of pears. His practice is undoubtedly good as far as it regards trees trained against walls or espaliers, but will not do for trees trained *en quenouille* or *en pyramide*. These require an annual winter pruning from top to bottom; every shoot must be shortened according to its strength, not only to keep the tree in its proper shape, but also to induce a supply of fruit-spurs near the body, which protects the fruit from being blown off or otherwise injured by the autumnal winds, and prolongs the life of the tree in a healthy fruitful state, many years.

Of the different sorts of stocks, I have found the Portugal quince answer remarkably well for most of our free-growing kinds of pears: in particular, if the soil be deep and good, and the bottom not too dry, they shoot freely, and in a short time after planting produce abundance of superior-flavored fruit. Even weaker-growing sorts are valuable on these stocks; as, where the garden is limited, and variety required, a double or even triple quantity may be planted, a great object to some cultivators. There are, however, several sorts which do not unite well on this stock, but this may be overcome by double grafting; for this purpose, the Beurrè, Doyenné, Virgoleuse, and Swan's egg, are recommended; but free stocks are much preferable where the soil is high and dry.

I remain, sir, yours, &c.

Bernard Saunders.

Nursery, Jersey, Nov. 1, 1830.

LIST OF PEARS.

Summer.—Green Chissel, Madeleine, or Citron des Carmes, Juneating, Cuisse Madame, Jargonelle, Epargne, Windsor, Bergamotte, summer, Franc-Réal, Epine d'été, Epine rose, Orange tulipée, Ah! Mon Dieu, Belle de Bruxelles, Caillot rosat d'été, Citron panaché, Mansuette.

Autumn.—Beurré d'Amaulis, Beurré de Capiaumont, Beurré Romaine, Beurré doré, Beurré rouge, Bezi de Montigny, Mouille bouche, Léche-friande, Louise bonne, Gracioli, Duchesse d'Angouleme, Bon Chrétien musqué, Gansell's Bergamotte, Messire Jean, Gloux morceaux, Franchipane, Verte longue, Seville, Sucré verte, Bezi d'Echasserie, Doyenné blanc, Doyenné gris, Culotte de Suisse, Autumn Bergamotte, Swiss Bergamotte, Crassane, Marie Louise, Swan's egg, Martin sec, Bishop's thumb, Petit rousselet

Winter.—Chaumontel, Bon Chrétien d'Auch, Beurré d'Astrasie, Beurré d'Aremberg, Beurré d'hiver, Colmar, Passe-Colmar, Colmar dorè, E'pine d'hiver, Royale d'hiver, St. Germain, Passe St. Germain, Angélique de Bourdeaux, Bergamotte de Souters, Bergamotte de la Pentecote, Bezi de Caissoy.

Baking Pears.—Bon Chrétien d'hiver, Bon Chrétien Turc, Bon Chrétien d'Espagne, Trésor d'hiver, Gilogil, Belle de Jersey, Poire de livre.

Art. CCCXVII.—*Eulogy on the Life and Character of the* Hon. Samuel L. Mitchill, M. D. *delivered at the request of the New-York City and County Medical Society, October 15th,* 1831. By Felix Pascalis, M. D.

We have read the able Eulogy of Dr. Pascalis with much pleasure. From respect to the subject of it as a friend and a greatly useful and distinguished citizen, we cheerfully give a large portion of our columns to extracts from the Eulogy.—*Ed. N. Y. Farmer.*

"For any professed judge, it must have been difficult to comprehend how Dr. Mitchill, no matter how highly endowed with intellectual powers, could have obtained his perfect classical tuition, and have mastered so thoroughly both ancient and modern languages. He was born in the year 1764, in Queens county, L. Island, not far from New-York. His childhood was therefore contemporary with the horrors and distresses of the revolutionary war, which were seriously felt in the vicinity of the city, and must have been still more severe upon the family in which he was born and reared, the members of which were Quakers. His father was a respectable farmer, with six sons and two daughters. Samuel, the fourth child, was apparently intended by nature for a higher destination; but it would have been difficult or dangerous to have placed him at a distance for the sake of better schools and masters than those of his village. The problem of his early advantages begins to be solved only when we are informed that Mitchill had been blessed with the observant eye and affectionate guidance of a maternal uncle, Doctor Samuel Latham, of Hempstead, who, capable of appreciating the latent powers of his ne-

phew, determined to cherish and foster them, by regulating and directing his education. With this aim, having no family, he adopted him as a son, and appropriated a liberal legacy to the exclusive purpose of young Mitchill's education. In accordance with these plans, dictated by the purest and finest feelings, Samuel Latham Mitchill was placed under the tuition of the Rev. Mr. Cutting, and others, from whom he could derive the best classical scholarship, to be found in the district undisturbed by the war.

"After the return of peace, and the victorious achievement of American independence, and before the completion of the 20th year of his age, Mitchill was directed to repair to Europe, to attend at the courses of one of the most celebrated schools of medicine.

"This second period in his education was destined to be as remarkable, as the first had been fortunate; for in this he became the pupil of some of the greatest physicians and philosophers that the University of Edinburgh, in its palmy day, could boast of; the celebrated John Brown, of whom it was said in Parliament, that he deserved a statue of gold for the new and philosopical character he had given to the study of medicine; the venerable Cullen, who is ranked among the first European masters of the healing art; a Hume, a Monro, a Gregory, a Nesbitt, and an Alexander Hunter, whose works constitute such important text books, and the great John Black, one of the fathers of the science of chemistry. Young Mitchill diligently attended to the lectures of these, and of several others, and the courses of natural history, for three years, not only as a matriculated student, but as a mace-bearer of the University.

"Aware of his renown abroad, the venerable Seminary of his native state, Columbia College, prepared a gratifying reception for him on his return, by investing him with the degree of Master of Arts. He shortly after, with the promptness which he always evinced in his devotion to the public good, and equally to the interests of his own State, undertook an analysis of the Saratoga Springs, amidst the primeval forests still standing around them, by which analysis he imparted the more general confidence in their efficacy, which first threw open a way for the influx of wealth annually poured into this State, by travelers to those sources. He was then, in succession, called to a seat in the Legislature of New-York in 1792, and appointed Professor of Chemistry, Natural History and Agriculture in Columbia College.

"Next to Chemistry, the science of Mineralogy claimed his attention, receiving at his hands a lustre and improvement, which, for our Northern Continent equalled the accessions of Humboldt in the Southern Hemisphere. His memorable mineralogical report in the year 1796, to the Agricultural Society, and which may be found entire in the Medical Repository, was such a production as placed its author on a level with Werner, Bergman, Berzelius and Hauy. It comprised a statistic view of the boundaries, divisions, mountains, rivers, and levels, and the soils and minerals of his native state, which might be converted into imperishable sources of wealth and industry. It traces geologically the granitic, schistic, limestone and sandstone tracts of the mainland; and in the islands and alluvions, the primitive and secondary formations, the marhes, beaches, overslaughs and lowlands. This Report is a brief in Mineralogy of universal knowledge; all is explored and described from the highest mountain ridge, or the craters of extinct volcanoes, to the beds of rivers; from homogeneous earths and soils, to precious metals, chrystallizations, gems, and every combination that has sprung from the operations of fire, water, and of specific gravity.

"During his excursions and travels, and out of his intercourse with the learned of every nation, it could not but happen that an immense number of specimens in the mineral kingdom, on which he disserted so profoundly, accumulated under his hands. To this large and precious collection, other natural curiosities of a durable nature, and singular fabrications, were added, until it formed a rich cabinet of organic remains, of fossil plants, of shells, of moluscas, madrepores and marine productions, of gems, jaspers, agates, chrystals, and all remarkable relics. The Mitchillian Cabinet, will no doubt contribute much to the instruction of future generations, and to the pleasures of the friends and lovers of Natural History.

"Of Natural History, Mitchill was the patriarch; and every branch of it had captivated his taste and his genius. And it is singular to reflect how much this province of learning has been the theme of such votaries as have been an honor to their country and their era: without more than naming Pythagoris, Theophrastes, and Aristotle, among the Grecians, and Pliny among the Romans,—what industry and eloquence can vie with those of the indefatigable, the gifted Buffon; what labors are more worthy of admiration than those of Linnæus; what lights of reason and talent were Haller, Jussieu, Broussonet, Foster, Spearman, and Robert Smith; how splendid in intellect were Barton, Mulhenberg, and Mitchill!

"To the delights and charms of Botany, Mitchill was peculiarly susceptible. He was a zealous and active furtherer of the Horticultural art: and whenever, by example or endeavor, he could propagate the love of these pursuits, he omitted in the cause neither effort nor expense. Not only did he discourse on them learnedly from the three professional chairs which he filled in this city, but he was ever ready, among his fellow-citizens, accurately to name or describe every plant referred to his notice; or to disseminate rare or useful seeds which he had imported from abroad, or to teach the art of gardening by his own example: a great disciple, on whom had descended the mantle of Linnæus, yet making his wisdom amiable even to a child; with a happiness of spirit, as if Horticulture were the Eden of the earth. Although he was a general oracle in Botany, yet the science was to him but a graceful exercise of memory and an elegant relaxation from severer studies. He has left, among other memorials of the enthusiastic zest and devotion with which he attended to the history of the vegetable kingdom, a discourse, delivered at the anniversary of the N. Y. Historical Society in 1813, which gives an account of every work and writer that has illustrated the Botany of North and South America.

"We have mentioned that in acknowledgment and reward of the attention he spent on this branch of natural history, Mitchill had been appointed President of the N. Y. Agricultural Society in 1792, and Professor of Natural History in Columbia College the ensuing year. He also received the honors of membership and presidency of agricultural or botanic institutions in Virginia and Pennsylvania; of the Royal Museum, the Linnæan Society, and the Royal Agri-

cultural Societies, of Paris, Prussia, Vienna, and Switzerland; and of the Agricultural Societies of Delaware, Connecticut, Massachusetts, and Montreal; and of the Horticultural Society of this city.

"The affability of Mitchill and his simplicity of manners, were proverbial; there naturally were times, indeed, when, after long application, he found it difficult abruptly to unbend from deep study, and to counterfeit or assume the easier tone of mind of the occasional visitor; he then was apt to be slow of speech and absent in address. Yet it was admirable to see with what equanimity he bore the unreasonable demands upon his time, called on, as he was, as umpire of all merits, in inventions, discoveries, projects, arts, sciences, literary subjects and schemes, new books and publications, professional cases, acts of charity or public spirit; to decide on most multifarious topics, to give advice, or bestow recommendation, as of his very versatile and applicable talents, alike in books or the business of the world, possessed ubiquity of perception. Of this slavery he would sometimes petulently complain to a friend; but he was never disconcerted by intruders, however ignorant, or idle, or indiscreet, and managed to send each away contented; nor was he ever perplexed by the bright and burnished wit of men of parts, seeking his society to measure their faculties with his. No man was ever more universally accessible than he—holding so high a place in society, yet he condescended to the lowest without ostentation—descending even to the capacity of a child, to instruct, to encourage the love of study, or to amuse. And notwithstanding the solidity and magnitude of his acquirements, yet he was unequalled in the cheerful and light operations of the mind, which he used as his defence against antagonists, for enemies he had none. With moral dignity and true goodness of heart he forbore all hautiness of demeanor, acrimony in censure, or heat in disputation; but when pressed by attack, he was unsurpassed in fine raillery, neat satire, and keen sarcasm; and all the artillery of wit, and mirth, joke and epigram, were ever at his command in repartee. Chaste in mind and conversation, and trained in early habits of guarded speech, he neither permitted nor encouraged the smallest departure from decency and purity of language, nor could he be detected in the utterance of vulgarisms or profane swering. The morality of his habits was depicted in his household; in his affectionate regard for his excellent and respected consort, who claimed and received his sincere love, and considerate indulgence in her domestic arrangements; in his family of young relatives, whom he cherished with the tenderness of a father; in his servants and attendants, who after emancipation still stayed with their master, and whom we have seen under his roof to the third generation; in the methodized distribution of the time, and tasks of each individual, in the refinement and social entertainment that pervaded the quiet and amiable abode; in the love of order and exercise shown in the precincts of his garden, cultivated and ornamented by his own hand; and in the weekly rest on the Sabbath, and observant attendance on the worship adopted by his family, and which he sustained by his example of respect and punctuality."

Dr. Pascalis supposes the *septon* of Dr. Mitchill to be the chloride of the French schools. If so, America is entitled to some honor in the discovery of a substance which is destined to be of much importance.

[For the New-York Farmer.]

Art. CCCXVIII.—*Curing Pork.*

Mr. Editor—In the New-York Farmer I noticed a recipe for making "Knickerbacker pickle," for beef or pork. I will give mine, which I have used twenty-six years with uniform success, and I will tell how and where I got it. In August 1805, I lodged from Saturday to Monday with an inn-keeper in Cherry Valley, N. Y., (who was also a farmer.) On the table, for Sunday's dinner, there was a fine piece of pickled pork, boiled the day before. I tasted it, and thought it the most delicious I ever ate. I requested "mine host" to give me his recipe for curing pork. He replied he would do so with pleasure, and proceeded as follows:—

"As soon as my hogs are dressed and cool enough to be cut, I pack the side pieces in a barrel or cask, with plenty of salt on all sides of each piece, and when my cask is full I immediately roll it to my pump and I pump in water until I can see the water cease to sink in the vessel, or to moisten the salt on top of the cask. I then lay a flat stone, as large as the vessel will receive, on the contents of the vessel, so as to keep the pork always under the salt or pickle. I put it in my cellar, covered so as to exclude the flies, and there it remains until a piece is wanted. Care must be taken to keep the meat under the pickle, otherwise it will rust."

Here is the whole secret of making good pickled pork for family use. I have used this method for the time above mentioned, and I want no better, easier, or economical plan. It has often happened that when I wanted to put down new pork there remained some of the old in the bottom of the cask. In that case, I poured off the pickle, took out the undissolved salt, packed the fresh pork on top of the old, using the salt which had been in the cask, with the addition of fresh if necessary, and then poured on the old pickle or water. In this way I have had pork three or four years in the bottom of my pork barrel, and when used it was as free from rancidity as it was three weeks after it was put down. Indeed I seldom empty my pork barrel except when it wants hooping. I believe that boiling pickle is useless if not injurious. Pork ought not, if it can be prevented, be frozen before it is put down.

C.

Princeton, N. J.

Art. CCCXIX.—*Premature Duties.* By the Editor.

A late number of the Journal of Health contains some strictures on the practice of requiring youth to perform those duties which are usually assigned to men. That respectable Journal considers the practice to be productive of ill consequences—to make young men superficial in all their acquirements, and conceited in regard to their real abilities. We are of the opinion that the doctrine advanced by the Journal is rather antique—true only in the absence of good common sense instruction on the part of teachers and parents. We have heard the same objection advanced against children of three to six years old being put to the study of Geography and Arithmetic, however simple the principles, and however in accordance to nature. Such person would require the youthful mind to

be inactive or dormant for a few years, until the body had acquired age and maturity. It requires no deep knowledge of the nature of the human mind to see the falsity of such sentiments.

The simple rule is, to require youth to perform all those duties which they can do well—all that relates to mental as well as to bodily qualifications. As far as our observation has extended, those who have had their judgement, talents, and acquirements brought into reqisition when young, have made the most enterprizing and actually business men. Formerly it was customary among farmers to bring up their sons with the impression, that they were not qualified to be entrusted with the discharge of scarcely any difficult performance until they had reached eighteen or twenty-one years of age. Mechanics would confine their apprentices during almost all the term of their appreticeship, to the performance of a few of the most simple works. It was considered quite out of character to place a youth in an office of trust—as though age was all, and mental developement nothing. Instead of bringing up children with the impression that they must wait until they have reached a particular stature, and a certain age, before they must begin to exercise the powers of body and mind, they should be fully impressed with the plastic nature of man—that the body can be early accustomed and inured to the performance of various offices, and the mind cultivated and developed by discipline and study to a degree that will early qualify an individual for the fulfilment and discharge of any of the callings of manhood.

We would not by the above remarks imply that we lightly estimate the experience of age—but simply that, like the great luminary of the heavens, the mind must constantly move, and emit its rays in the first dawn of morning as well as in the zenith of its glory.

ART. CCCXX.—*Sale of English and Arabian blood Horses, Cattle and Sheep, on the 16th inst. by R. R. Minturn & Co. at the Farm of Charles Henry Hall, Esq., Harlaem.*

CATTLE.

Wyecomet, an English Bull, imported by Gov. Lloyd of Maryland, sired in England by Blaze; dam White Rose, purchased by Henry Lynch, Esq., $200.

Norfolk, a full blooded Devonshire Bull, 4 years old, sired by an imported one, presented to Rufus King by Farmer Coke of Norfolk, Eng.; dam Symetry, purchased by Lloyd Minturn Esq., of West Chester, $90.

Henry, a full blooded Devonshire Bull, 2 years old, sired by Norfolk; dam Symmetry, purchased by Robert Troup, Esq., $65.

Devon, a full blooded Devonshire Bull, 2 years old, purchased by Fras. Barretto, Esq., $25.

Alderney, a Bull, 2 years old, sired by a Devonshire out of a prime Alderney Cow, $25.

Durham, a pure short horned Bull, 5 years old, imported by Mr. Brientnall of Dutchess Co. 4 years since at an expense of $500, purchased by Richard Townley, Esq., $400.

Young Patroon, a bull, 1 year old, sire the full blood Patroon; dam White Face, by Regent, purchased by Mr. Halsey, $80.

Red Patroon, a Bull, sire Patroon, dam Symmetry, purchased by Jas. Wadsworth, Esq. of New-York, $20.

Windsor, a bull, 3 years old, sired by Wyecomet, dam by Holderness, $30.

A White Bull Calf, 9 months old, sired by Wyecomet, dam Nelly, by Admiral, great dam Rosa, by Denton, great grand dam Juberose, whose sire, Comet, was sold in England in 1804, for 1000 guineas; purchased by Lloyd Minturn, Esq., $100.

Davy, a Bull, 1 year old, sire Wyecomet, dam Strawberry, $20,

John Bull, a Bull Calf, sire Durham, dam Harry, $47 50.

Nimrod, a Bull Calf, sire Durham, dam Rosebud, $30.

A Spotted Heifer, 1 year old, thorough bred short horn, sire Patroon, dam Beauty; purchased by Robt. Troop, Esq., $105.

A Red Heifer, 1 year old, by Patroon, dam by the imported bull Comet; purchased by John Ford, $45.

A Heifer, 2 years old, by old Regent, dam by Comet, purchased by Chas. Green, Esq. of New-York, $70.

Patroness, a Heifer Calf, by Patroon out of Whiteface, $17 50.

Girt, a Heifer Calf, by Patroon, dam a native Cow, $12 50,

Shaker Cow, a native in part of the Durham breed, in calf by Wyecomet, $20.

Strawberry, a Cow, 4 years old, sire Denton, dam Willey, $32 50.

A Red Heifer, 2 years old, sire Wyecomet, dam Fanny, $42 50.

A Red and White Heifer, 1 year old, sire Wyecomet, dam Fanny, $27 50.

Delia, a Heifer, 1 year old, sire Wyecomet, dam Lady Hills, a full blooded Ayrshire cow, $45.

Starry, a Cow, 4 years old, sire Comet, dam by Nelson, in calf by Durham, $45.

Jenny, a cow 6 years old, bred by J. W. Schmidt, Esq. out of his imported Holstein cow, $50.

A Red Native Cow, $20.

A Red Bull, 7 years old, sired in England by the short horned bull George of Lancashire, dam Pretty, of the Teeswater breed, $50.

A White Heifer, 1 year old, sire Greenbush, dam a native cow, $35.

A Spotted Heifer, 1 year old, sire Regent, dam a three quarter blooded cow, $25.

Champion, a ✕ blooded Durham Bull, bred by Mr. Brientnall, 1 year old, $60.

Beauty, a red and white cow, sire Regent, dam a short horned cow, in calf by the full blooded bull Young Durham, $35.

Lady Durham, a heifer calf, sire Nelson, dam Dunny, a full blooded Durham cow, $35.

Daisy, a heifer calf, sire Nelson, dam Primrose, a full blooded short horn cow, $22 50.

A full bred short horned Durham cow, with a full bred bull by her side, $25.

Comet, a white Bull, imported, sire Blythe Comet, dam a thorough bred imported short horned cow, $40.

Two full blooded Devonshire Heifers, in calf by Devon, each $30.

HORSES.

Flirt, a Bay Mare, 14 years old, with a colt by Henry at her side; sire Duroc, dam Tippoo Sultan, grand Potomac; purchased by J. S. Fulton, Esq., $300.

Sampson, a sorrel Horse, 15½ hands high, 5½ years old, sire Ivanhoe by Eclipse, dam by Hickory, great grand dam by Potomac; purchased by Mr. Ely, $290.

Express, a sorrel Colt, 15 hands 3 inches high, 3½ years old, sired by Henry, dam by Hickory, grand by Tippoo Sultan, great grand dam by Potomac; purchased by Mr. Samuel Purdy, of N. Y., $400.

A five year old Mare, sired by Winter Arabian, dam by young Baronet, $100.

Harlequin, a blood bay Horse, 15½ hands high, 7 years old, sired by the Virginian horse Dinwiddie, dam Miss Constable, $140

Constellation, a sorrel horse, 16½ hands high, 6 years old; his sire American Eclipse; dam Olivia, by the imported horse Admiral Nelson out of Old Sport. Purchased by Mr. Hill, $775.

Talma, a grey horse, 15 hands 3 inches high, 4½ years old, sired by Henry, out of Sport's Mistress, by Hickory, her dam Miller's Damsel, by Messenger. Purchased by Mr. Ely, $1125.

A Bay colt, 15 hands 1½ inches high, 2 years old, sire Henry, dam Gulnare, by Duroc, out of Sport's Mistress, purchased by Thomas Pearsall, Esq. of N. York, $450.

A Sorrel Filley, sire Eclipse, dam Agnes, by Sir Solomon, gt. gt. gr. dam the imported Pot-8-os mare. Purchased by T. Pearsall, Esq., $300.

Ranger, a dark bay horse, 15½ hands high, 3 years old, sired by the Bussorah Arabian, out of the imported mare Alarm; purchased by Mr. Watson, of East Windsor, Conn., $575.

Alert, a black filley, 1 year old last grass, sire Eclipse Lightfoot, dam Alarm; purchased by F. S. Lathrop, Esq., Conn., $525.

Alarm, an imported mare, bred by Lord Grosvenor, 11 years old, sire Thunderbolt, dam Tadora; purchased by J. S. Fulton, Esq. $575.

Surprise, a filley, 1 year old next grass, sire Barefoot, dam Alarm; purchased by Lloyd Minturn, Esq., $450.

An English mare, $100.

A 2 year old filley, $65.

SHEEP,

Of the Bakewell breeds.

25	full blooded	Bucks,	1 to 3	years old, each,	$5
1	do	do	do	do	4
1	do	do	do	do	7
2	do	do	do	do	8
1	Ewe,				12

The sale was very well attended, but owing to the lateness of the season, bidders did not evince as much spirit as at the last fall sale, and the prices obtained were rather lower than expected. Several fine horses were withdrawn, in consequence, and not more than one half the number of sheep advertised were disposed of. The cattle, on an average, brought fair prices.

[For the New-York Farmer.]

ART. CCCXX.—*Prejudice—Cobbett's Corn—English Cottages.*

MR. EDITOR—I 'guess' you will agree with me that publishers of periodical works should, of all other men, endeavor to act impartial in preparing matter for their publications; and that it is possible for a man to be a bigot and not know it himself. In your last number, after giving us a copy of Mr. Cobbett's Challenge respecting Indian Corn, taken from his Register of September last, you say that "Mr. Cobbett could scarcely have chosen, in this state, a circle of ten miles radius, in which there is less corn land than around this city." Now, I think, Mr. Editor, when you consider that this circle embraces a great proportion of our market gardens, where many kinds of vegetables are brought to great perfection, which requires the best of soil and culture, that you will admit his challenge to be greatly in our favor—especially if you call to mind your former prejudice against Indian Corn growing in England. In the first volume of your work, page 248, you say that "the humidity of the air in England, and the want of that intense heat which is so favorable to the growth of corn in this country, incline us to think Mr. Cobbet is rather too sanguine in his expectations. He may, however, by obtaining his seed from this country for a few years, succeed in acclimating this wholesome and important grain." Again, if we take into consideration another report that is freely circulated in this country, namely, that "Mr. Cobbett, though a fine writer, is very ignorant as respects gardening;" and that we have a choice from "all the Yankees on the face of the earth," many of whom are great corn growers, and also a choice of seeds, that we shall have no great cause of triumph if we beat Mr. Cobbett, as we have every thing in our favor, whereas Mr. Cobbett will have to labor under all these several disadvantages. While on the subject of partiality, I would refer to another article published in your number dated September 22, page 244 of the present volume, headed "Cottages in England." You there give us an exaggerated picture of the most wretched abodes that man can conceive of, said to be in the vicinity of Salisbury, which is calculated to give your readers an erroneous idea of the state of the generality of the cottages in England, the neatness of which is proverbial among foreigners visiting that country. You quote Loudon as your author, without acknowledging the fact of its being extracted from an article, page 292 of his Magazine for June last; the writer of that article says, he lives "in a village which is a remarkably pretty one;" from which we may infer that the cottages generally are not such wretched abodes as has been painted out. The author says further, that "he is a great lover of the picturesque, which he would carefully preserve on the outside of cottages." He gives a "plan accompanied with plates suited to a man of fortune wishing for pretty and comfortable cottages upon his estate." I think if you had copied this article entire, it might have been generally acceptable to your readers, but an extract of the kind alluded to can have no other tendency than to create hard feelings between men of different countries, which an editor should carefully avoid. It must also appear evident to you, on reflection, that such an extract conveys a very unfavorable idea of Loudon's Magazine, from which you copy many articles that do you credit as a compiler. I am aware that in offering this article for insertion in your Repository, that I am treading on delicate ground. But you may rest assured that I wish you success in all your endeavors to impart useful knowledge to your fellow-citizens, and that I am,

Your sincere friend, and obedient servant,

THOMAS BRIDGEMAN.

New-York, Nov. 21, 1831.

ART. CCCXXI.—*Miscellaneous, Original, and Selected.*

Corn Husks for Beds.—Among the important uses which Mr. Cobbet enumerates from the growing of corn in England, is that of husks for beds. He considers them superior to any other substance in use. They are split into narrow strips and curled.—*Ed.*

The Lampas in Horses.—MR. EDITOR—From time immemorial it has been the practice of farriers and blacksmiths, to burn out what is called the lampas in a horse's mouth—an operation which I, as well as every Veterinary of the new school, can prove to be as unnecessary as it is cruel. If those who profess great skill in removing what I should call a beautiful structure, possessed common sense, they would not be guilty of such a heedless practice. It is my opinion that nature placed them there never to be removed.

G.

REMARKS.—We wish that G. and 'others of the new school' would give the reasons advanced by the pretender in favor of the practice, and also those against it, founded on the anatomy of the horse, and the office performed by the lampas.—*Ed.*

Live Fence.—After speaking of his failure with the English Hawthorn and the Three Thorned Acacia, Mr. E. H. Derby, of Salem, in the N. E. Farmer, thus speaks of his further experiments:

"After a fair trial of near ten years I dug up the whole and replaced it with the American Buckthorn (Rhamnus catharticus;) with this I have been completely successful. It has, it is true, but few thorns, but it grows naturally so thick as to be a complete protection to the land inclosed by it. It shoots early in the spring and holds its verdure till very late in the fall. If properly managed, it is so close below that a rabbit could scarcely work its way through, while above the strong branches are so wattled and interlaced, that a man could not scale it, nor a bull force his way through it."

Method of Preserving Sweet Potatoes.—A curious old farmer surmounted the difficulty of preserving seed, in the following simple manner.

He dug his seed before any frost, and dried them well in a warm dry room, then dug a hole under his kitchen hearth and packed them there in very dry sand; so particular was he to have this sand perfectly dry that he baked it on boards in his oven; then had a hearth stone neatly dressed to cover the hole; and preserved them perfectly sound until time to plant gardens.

The mystery is, that Sweet Potatoes, to prevent their rotting in winter, must not only be kept from *frost* and *wet*, but also from *cold* and *damp;* and I have not the least doubt of their growing well in the New England States; but as I cannot obtain seed in this place I have not raised any. Respectfully, SAMUEL PRESTON. Stockport, Pa. Oct. 26, 1831.—*N.E. Farmer.*

Cost of Steam Boats in the Valley of the Mississippi.—It has been asserted that the cost of a steamboat in the west is about 100 dollars per ton. This estimate, as a general one, is, I am persuaded, too high. The cost of steam boats in the west, as every where else, is proportional inversely to their size. A steam boat of fifty tons costs more proportionally, than one of a hundred tons, or five hundred tons. At present a boat of from seventy-five to one hundred tons may be completely finished and prepared in every respect for running, for about *eighty dollars* per ton; or at the highest, when most expensively furnished, for *one hundred* dollars per ton; whilst a boat of five hundred tons can be built for perhaps sixty dollars per ton.—For instance the Uncle Sam, of five hundred tons, cost about 29,500. Some idea of the large amount of capital invested in steam boats in the west may be obtained from the above statement. The seventy-five steam boats which are building this year, some of them being of the largest class, will average from 12,000 to 15,000 dollars each, in all from 900,000, to 1,125,000 dollars.—*N. Y. Observer.*

Revolution in Commerce and Traveling occasioned by Steam Boats.—It is said that goods can be shipped from New-York to New-Orleans, and then carried by steam boat to Cincinnati, for one cent per pound!

When steam boats first began to run, 125 and even 150 dollars were cheerfully paid for a passage from New-Orleans to Louisville! And when the charges were so diminished as to be only 100 dollars from N. Orleans to Pittsburg, which is 700 miles further, and in all 2200 miles, it was thought truly astonishing.—But now one can go from New-Orleans to Pittsburg as a cabin passenger, for from 35 to 45 dollars, and fare sumptuously every day! And if he chooses to go as a deck passenger he can do it for perhaps 10 or 12 dollars.

Although the steam boats of the west are generally designed for carrying freight as well as passengers, yet it is astonishing what a number of persons one of them can carry. Even a boat of 100 tons often carries 50 cabin passengers, as many more, or perhaps twice as many, on deck and withal 75 or 80 tons of freight! and a boat of 500 tons, such as the Uncle Sam, or the Red Rover, or Belfast, has often carried one hundred passengers in the cabin, five hundred on deck, and four hundred tons of freight, and withal marched on the mighty Mississippi at the rate of six or eight miles an hour! Immense numbers of passengers are carried from one part of the Valley to another by these boats. Those boats which come up from New-Orleans bring, besides merchants and other inhabitants or strangers, who occupy the cabin, hundreds of German, Irish, and other foreign emigrants who landed at that port, and are seeking a home in the interior of the Valley of the Mississippi: On the other hand those which descend from Pittsburg carry hundreds of travelers and emigrants from the east, as well as from foreign lands.—*Ib.*

The Season.—To this date the fall and winter months have been remarkably mild and pleasant.—Green house plants have been exposed to the open air without injury; fruit trees have blossomed and formed their second fruit crop; flowers have kept in their bloom and splendor, and strawberries have ripened even to the middle of the present month.—*Ed.*

Beef for the Emigrating Indians.—On Saturday last, the proposals for the delivery of 1,080,000 lbs. of fresh Beef at the mouth of Kiamicha, for the use of the emigrating Indians, were opened, and the contracts adjudged to three companies, each for 360,000 lbs. Two are at $3 74 per cwt., and the other at $3 80. The contractors are all citizens of the Territory, and the proceeds of their contracts will throw into circulation among us, upwards of $40,000 for cattle, the growth of our country.—*Arkansas Gaz.*

Culture of the Vine in Pennsylvania.—A gentleman near Harrisburgh is said to have made this year, from the produce of a vineyard, planted four years ago, and occupying only three acres, eighteen barrels of wine, worth 20 dollars each.

Agricultural Societies.—Mr. Fleet, I observed in the New-York Farmer of the 10th and 17th instant, remarks on the importance and expediency of Agricultural Societies in the State of New-York. Permit me to inquire, as the subject is of great interest to me, and I should suppose to my brother farmers, at what *time* and what *place* a meeting on this important subject is likely to be convened? At the request of many of my neighboring farmers who, with myself and others would be happy to lend our aid and add our mite, I make this inquiry.

Remarks.—As far as we have interchanged views with those who take an interest in the subject, it is thought that an Agricultural and Horticultural Society should be formed in every county, and be auxilliary to a State Society. Let no one individual or county wait for another. Go forward.

From almost every part of the State we have had information that leads us to conclude that the agricultural community generally stand ready to second those who will make a beginning. We should be pleased to have suggestions on the plan of forming the societies.

New-York Cattle Market, Bull's Head, Monday, Nov. 21, 1831.—The number of Cattle less than usual, and sales very dull. No improvement in prices may be expected until after Hollidays—500 were sold from 4¼ to 6¼ dollars, averaging 5½.

Sheep, 1500—sales slow from 1¾ to 5 dollars.

Cows and Calves, but very few.

Hay remains about the same 62½ to 75 cents:

New-York Produce Market, November 16, 1831.

Ashes—Per 100 lbs. Pots, first sort, 1831, 5 15 to 5 20, Pearl, 5 25 to 5 30.

Barilla—duty free, Teneriffe, ton 38 00 to 45 00.

Beeswax—duty, 15 per cent ad. val. White, lb. 44 to 45, Yellow 20 to 00.

Bread—Navy, lb. 0 to 3½, Pilot, 0 to 4½, Crackers, 5½ to 5¾.

Coal—duty, 6 cents per bushel, Liverpool, chal. 00 00 to 13 00, Scotch 00 00 to 00 00, Sidney and Bridgeport 00 00 to 9 50, Albion 9 00 to 00 00, Virginia 6 75 to 9 25, Anthracite, ton, 6 00 to 7 00.

Cordage—duty, tarred, 4 cents, untarred, 5 cents per lb. Foreign, lb. 11 to 00, American, cwt. 00 00 to 00 00.

Cotton—duty, 3 cents per lb. New-Orleans, lb. 10 to 12, Upland 07 to 10, Alabama 8 to 11, Tennessee 8 to 9½.

Cotton Bagging—duty, 5 cents per square yard, Hemp, vd. 13 to 17, Flax 12½ to 16, Do. American 19 to 21.

Feathers—duty, 15 per cent. ad. val. Live, Foreign, lb. 14 to 20, American 35 to 37½.

Flax—duty, $50 per ton, Russia, lb.10 to 11, American 6 to 8.

Flour & Meal—N.Y. superfine, bbl. 00 00 to 5 62, Troy 0 00 to 5 87, Western Canal 6 to 6 25, Ohio, 5 75 to 5 87, Philadelphia 0 00 to 5 87, Baltimore, Howard-st. 5 75 to 0 00, Richmond, city mills, 6 00 to 6 12, Do. country, 5 50 to 5 62, Alexandria and Georgetown 5 50 to 5 81, Fredricksburg 5 50 to 5 62, Petersburg 5 50 to 5 62½, Scratched and fine 5 25 to 5 37, Middlings, fine, 5 00 to 5 25, Rye Flour 4 75 to 0 00, Indian Meal 3 62 to 0 00, Do. do. hhd. 17 00 to 00 00.

Grain—Wheat, N.River, bushel, 1 16 to 1 20, Do. Genesee 1 22 to 1 28, Do. Virginia 1 15 to 1 18, Do. N. Carolina 1 00 to 1 12, Rye, Northern, 88 to 90, Corn, Yellow North, 68 to 70, White, L. Island and Jersey70 to 00, Southern 55 to 68, Barley, N. R. 1 25 to 1 30, Oats, South and North, 40 to 47, Peas, white dry, 7 bushel, 6 00 to 7 00, Do. black eyed, bushel, 00 to 00, Beans, per tierce. 7 bushel, 7 50 to 8 50

Hemp—duty, on Russia, $60 per ton, Manilla, 15 per cent ad. val., Yarns, 5 cents per lb. Russia, ton, 225 00 to 240 00, Manilla 240 00 to 000 00, Sisal 000 00 to 000 00, American, dew-rot, 150 00 to 000 00, Yarns, Kentucky, lb. 00 to 00.

Honey—duty, 15 per cent. ad. val. Havana, gal. 50 to 51.

Hops—first sort, 1831, lbs. 12 to 00, second sort, 10 to 00.

Horns—duty, 15 per cent. ad. val., Horns, Ox, per 100, 5 00 to 20 00.

Lumber—Yard selling prices, Boards, N. River, M. ft. 00 00 to 15 00, Do. Eastern Pine, 16 00 to 17 00, Do. Albany do. pce. 16 to 17, Plank, Geo. do. M. ft. 25 00 to 35 00, Staves, W.O. Pipe, M. 56 00 to 60 00, Do. hhd. 36 00 to 40 00, Do. bbl. 29 00 to 32 00, Do. R. O. hhd. 27 00 to 00 00, Heading, W. O. 54 00 to 55 00, Hoops 25 00 to 30 00, Scantling, Pine, 15 00 to 16 00, Do. Oak, 20 00 to 25 00, Timber, Oak, sq. ft. 20 to 25, Do. Geo. Yellow Pine 25 to 30, Shingles, Cypress, M. 3 75 to 4 00, Do. Pine, bdl. 2 50 to 3 00.

Provisions—Beef, Mess, bbl. 7 25 to 7 50, Prime 4 75 to 5 21, Cargo 0 00 to 0 00, Butter, N.Y. dairy, lb. 13 to 16, Shipping 10½ to 11½, Philadelphia 10 to 11, Hog's Lard 8½ to 9, Pork, Mess, bbl. 12 00 to 13 00, Prime 10 00 to 11 00, Cargo 00 00 to 00 00, Cheese, American, lb. 5 to 6½, Hams, Virginia 10 to 00, Northern 10 to 00.

Rags—duty, Free, Foreign, lb. 4 to 8¾, Country 3 to 5.

Rice—100 lb. 350 to 3 75.

Salt—duty, 15 cents per 56 lbs. Turks Island, bush. 57 to 58, Isle of May 47 to 48, St. Ubes 48 to 49, Cadiz 00 to 47, Lisbon 00 to 48, Liverpool, ground, 00 to 44, Do. blown 00 to 00, Do. do. sack, 2 15 to 2 25.

Sugar—duty, Brown 3, White clayed, 4, Refined, 10 to 12 cents per lb., British Island, lb. 6 to 9, St. Croix 7 to 9, New-Orleans 5 to 7, Havana, white, 9½ to 11½, Do. brown, 6½ to 7½, Muscovado 5 to 7, Porto Rico, 5½ to 7½, Brazil, white, 6½ to 8½, Do. brown, 5 to 6¼, Manilla, brown, 6½ to 7, Lump 13 to 14, Loaf 14½ to 16½.

Sumac—duty, 12 per cent. Sicily, ton, 85 00 to 90 00, Trieste 55 00 to 60 00, American 35 00 to 40 00.

Tallow—duty, 1 cent. per lb. Foreign, lb. 00 to 00, American 10 to 10¼.

Wool—duty, 4 cents per lb. and 50 per cent. ad-val. Merino, Am. Fleece, lb. 45 to 70, Do. pulled 45 to 60, Common 25 to 35, Pulled, spinning, 00 to 50, Lambs, 1st quality, 53 to 56, Do. 2d do. 38 to 40 Do. 3d do. 28 to 30.

[For the New-York Farmer.]

ART. CCCXXII.—*The Country Farmer.*—No. XI.

Horticultural Societies.

HORTICULTURE, *Mr. Fleet,* is a Member of the Family of AGRICULTURE, or so we Farmers consider it. At any rate they are related like all the inhabitants of Nantucket, and quite as much of an 'unit,' as the late Cabinet, at Washington, either before or after the 'explosion.' When the brilliant Aerialite, dashes across the heavens, like a rocket of the skies, the very 'congreve' of the wars of the *gods*,—all eyes are turned towards its trail of fire, an unit, monstrously extended, filling all minds with wonder! But an explosion rends the air;—the splendid meteor is torn asunder, flies off in fragments, and ends in showers of meteoric stones, which fall, far distant! Is it an unit, now, or, more puzzling still, is each piece an unit? A hard question for political casuists, with which we have nothing to do, thanks to the blessings which flow from honest industry and hardy toil.

In order to learn all that I could, by seeing what others had learned, and were learning, I have been travelling some, among my brother Farmers, and, as luck would have it, happened to attend several of the annual meetings of our Horticultural Societies. There can be no doubt, I think, that these associations are actually productive of good; because, wherever they are in operation, a sort of new impulse is given to the minds of cultivators of the soil, not only, but to those of other members of the community, more or less turned in a right direction. That is to inquiry, attention to facts, and of course to observation. If there are faults, in the plan of any of them, experience may serve to correct them, for this, after all, is the chief school of wisdom. The idea of a ball,—a dancing party—and a *Fete*, [fute they call it,] as a means of promoting and improving Horticulture, seems to me a little out of joint,—an odd notion,—and yet I am not disposed to quarrel with it. Great cities, I suppose, must have odd notions: or, to adopt the idea of Mr. Jefferson, great scabs! The music, at any rate, was quite musical, and so, I doubt not, did our town cousins consider the dancing. To give your readers an idea of it, in the country, the Garden was all lighted up like the grove of woods at Camp Meeting time, all full of bustle, people every where, and all in great haste! I doubt if we country folks could learn any thing about Farming, at such a place, and yet I do insist upon it, that Horticulture and Agriculture are nearly related, though I could not discover any thing that looked like it at the great Ball. The prices, paid for every thing there, soon satisfied me that there were 'Whistles,' in this world, besides Dr. Franklin's, and began to raise doubts, in my mind, whether they were all Gardeners, that attended there?

At the next Horticultural Exhibition that I attended, on my way to the 'far west,' instead of a ball, they had a '*Dinner*,' 'served up' at about our tea time, just before dark! This puzzled me, to find out why they should call this a dinner, till I saw that it was evidently intended for the principal meal of the day, and perhaps had been delayed, waiting for the Gardeners to get through with their days' work. It was a sumptuous feast, with abundance of very fine fruit, besides all the eatables and drinkables that could be desired, to keep men from enjoying good health. If Gardeners, in cities, live at this rate, they must have strong constitutions! The anniversary, however, comes around but once a year; and perhaps at all other times, they dine when the work of the day is but half done, as we Farmers do. Eating, at any rate, calls for food; and so, for aught I know, does fiddling and dancing; but it puzzles me to see how these feasts, and balls, form any part of Agriculture? There are mysteries, it would seem, in all matters, and so it may be in this, and quite beyond my comprehension!—There was an old school-mate of mine, there, a member, as he told me, who had come a half day's ride, to bring a Dearborn load of the produce of his Garden to the 'exhibition,' worth, at home, 5 or 6 dollars, all which would become the property of the society; and he stood a chance, like the purchaser of a Lottery Ticket, to get a premium, of 1 or 2 dollars. The Ticket for his dinner cost him—let me reckon up—the price of 8 bushels of turnips, potatoes, or oats; of 4 bushels of buckwheat, rye or corn; of a bushel and 3 pecks of wheat, or barley; and as much as the selling price of 7 or 800 pounds of hay, quite a little *jag*, as we call it. Even if sober, he would hardly ride home, that night, and so we may reckon the expense of one night in town, himself and horse, with at least one day's loss of time, and then foot up the account of profit and loss. With my arithmetic, I cannot discover how *he* is to make any thing by this kind of Horticulture? We Farmers could not, suppose the name changed, if necessary, to an Agricultural exhibition, There would be loss, to fall somewhere, and no great mystery where, surely. As to the profit, some of which there must be, with so much loss, I suppose that all takes a direction for the public good, and that these suggestions can therefore give no possible offence. We should all have some patriotism, and be willing to participate in its burdens, so as to make them fall as equally as possible. With this view, I would most respectfully suggest to my Cousin Horticulturists, to bestow a little thought upon a reconsideration of some features of their plan of operations. If they do not, I would propose it to the Gardeners.

In sober seriousness, it appears to me that this plan of operation asks too much of my *first* Cousins, the real sweat-of-the-face-men, for the gratification, to say nothing of the benefit, of my *second* Cousins, the Horticulturists, or even for Horticulture, and the public good. The burden falls unequally. Gentlemen, fond of the display, and the name, may amuse themselves with Horticulture, and set a good example in doing it, but they should be careful to bear a due proportion, according to their means, of all the labor and the expense. This is not done, now, and the effect is *felt*, among the real Gardeners, who keep aloof, or cooperate reluctantly. To their good sense, to their patriotism, the managers of these Societies may well appeal, but it must be in a way manifestly compatible with fair impartiality and strict justice. The Farmers, would then come in, as co-operators, with all the members of the Family, united in a common effort, for the common good. They who toil at the oars, must not be required to pay the tolls, lest those who would ride, may have to stay at home, or pull away, themselves. To go pleasantly, we must all be co-operators: operators, each in his way, and co-operators. Social efforts, conducted upon such principles, would be pleasing to all parties, possessed of one grain of patriotism, fruitful sources of public benefit, and of immense power, in giving a high tone of action to the

public mind. We should then see, and the whole country would see, that Farming and Gardening are kindred occupations, and Agriculture and Horticulture of one Family, as are all the actual cultivators of the soil. To make them an unit, requires only united effort, concert in action, with no intervening disturbing force, to speak in the language of philosophy.

I have thus, I think, certainly with feelings of the most perfect good will to all parties, indicated some faults, which require correction, in doing which, I have also seen much to commend; and probably anticipate fully as much good, from Horticultural Associations, properly conducted, as any reasonable man in the United States. If experience confer any claims to respectful attention, the COUNTRY FARMER may plead some of this, both as a practical Farmer and Gardener, and as an acting member and officer of sundry Agricultural and Horticultural associations.—He asks no undue deference, however, for his opinions, but that they may be maturely considered, and rejected, or approved, as shall be found best, in the discretion of every real friend to his country, and of its sources of prosperity and happiness. Considering every Garden as a sort of miniature of a Farm, and Gardening model Farming, he would therefore studiously encourage Horticulture, both for its elegant usefulness, in its productions, and as a School of Agriculture. The Farm, without a Garden, particularly where youth are in training for Farming, is like a house without apartments, or a Farm without fences. Hor. Societies would do well to take all this into consideration, and to direct their attention chiefly to usefulness and profit, so as to exhibit examples worthy of being followed, as *good models*, and therefore likely to become patterns for others. *Sept.* 14, 1831.

ART. CCCXXIII.—*Difference of Climate on the Eastern and Western Shores of a Continent.*

A notice to emigrants, by the society for forming a settlement in the *Oregon Country*, on the Columbia river, reminds us of some interesting facts connected with climate, which are, we imagine, new to most of our readers. One grand peculiarity, not yet explained satisfactorily, is the superior mildness of the climate of the western coast of a continent, or island, over the eastern, or opposite coast, in the same latitude and elevation.

Thus, for example, while all is sterility and desolation on the eastern coast of North America, even as low as the 55th degree of north latitude, and ice and snow maintain a perpetual existence at the 60th parallel, we find on the coast of Norway, or western coast of Europe, ten degrees higher, that all is life, and animation, and beauty.

The difference of climate between the western coast of North America, and the eastern coast of Asia, is still more surprising, when we reflect that the parts of the two continents to be compared, are only seperated from each other by a strait, rather more than forty miles in width. Kotzebue, in his voyage of discovery, undertaken in 1815, informs us, that the crossing of this short extent of water from America to Asia, was like passing from winter to summer. While all was verdure at Cape Prince of Wales, in America, the opposite point of East Cape in Asia, was covered with eternal ice. A few hours sailing directly to the west sank the thermometer from 59° to 43° F.

The general agent of the Oregon Society says, "that the climate on the shores of the Columbia river is remarkably mild and healthful." A person, ignorant of the difference of climate between the two coasts of a continent, might naturally enough look at his map, and having discovered what spot of the eastern or Atlantic coast was of the same latitude as the mouth of the Columbia river, he would infer the mean annual temperature of the latter to be the same as that which he knows the former to possess. He would be deceived in this case, as in any other in which he would take parallels of latitude to measure climates, without reference to numerous modifying causes, among the chief of which, is the kind of exposure just mentioned.

In New California, on the Pacific ocean, they cultivate with success the olive along the canal of Santa Barbara, and the vine from Monterey to the north of the parallel of 37 deg. N. lat., which is that of the country near the mouth of the Chesapeake Bay. The mouth of the Columbia river, in lat. 44° 40′ N. has a mean temperature of 55° F., the same as that of Pekin, in China, on the opposite continent, in lat. 39° 54′ N. Philidelphia, on the eastern side of the continent, is in about the same latitude as Pekin, or nearly five degrees farther south than the mouth of the Columbia river, and yet its mean temperature, 52° F., is three degrees less than that of the latter.

In corroboration of these views, for which we are indebted to the celebrated traveller Humboldt, it may be mentioned, that on the shores of the narrow channels of the Bosphorus and Dardanelles, dividing Europe from Asia, the western coast of the latter continent has a more genial climate than that of the former. In the spring, says Wittman, vegetation is several weeks more advanced on the Asiatic than on the European side, and the productions of the soil more vigorous and of larger growth.

So far, we see that marine exposures to the west appear to give a milder climate; and if we carry our investigations farther, we shall find that the mean annual temperature of places in the same latitude diminish as we advance to the east. Thus Warsaw, the capital of Poland, has a less medium temperature than Amsterdam, on the same line of latitude; it is hotter in summer and colder in winter. Astrachan, at the mouth of the Volga, is nearly in the same latitude as Lyons. The Crimea is not so warm as upper Italy, to which it corresponds, and although it also presents, equally with the latter' low grounds. Pekin is in the same parallel as Naples, but with less medium temperature, and exposed to much greater vicissitudes.

The interest with which the subject of climate is always studied, as well by the physician as by the Naturalist and agriculturist, will justify our indulging in further details hereafter. We shall then show, that even the mean temperature of a place gives but an imperfect idea of its climate, unless we know the difference between its temperature in summer and in winter.—*Journal of Health.*

ART. CCCXXIV.—*Clover Mill—Sunflower Oil.*

The clover mill at Spring Dale, (the residence of Charles A. Barnitz, Esq.,) is worthy of particular no-

tice. It is one of the many improvements in agricultural economy effected by the publication of the American Farmer, as Mr. Barnitz had it made from a drawing and description published in the 6th volume of our journal. The machinery is very simple, and occupies about the space of a common threshing machine, and costs about the same. Its advantages over the common mill are very great: it gets out the seed cleaner, and does not bruise it. Since Mr. Barnitz has had one in operation, all the other mills in the neighborhood have been stopped,—none being able to compete with it. This is the best possible proof of its excellence. Mr. B. has erected three machines, all turned by a hand from the water wheel of a small grist mill. The clover mill is equally well adapted to getting out lucerne seed.

In the same building with the clover mill, is an oil mill for the extraction of linseed and sunflower oil. There is nothing peculiar in the extraction of linseed oil, except in the press. This is on the *wedge principle*. A long trough receives the crushed seed, which is pressed longitudinally by wedges driven perpendicularly by machinery. The advantage of this mode is derived from the continual alteration of the surface exposed to pressure.

The sunflower oil is extracted in the same manner as linseed, except that the seed is *hulled* by passing it through a machine for the purpose. Mr. Barnitz informed us that the production of linseed oil is declining rapidly, and that sunflower oil would supersede it altogether, as it is much more profitable to the farmer. The sunflower oil has been tried in paint, and found to be admirably adapted to it, as it dries in with great facility. For lamps it answers a good purpose, and in some respects is superior to sperm, especially in its perfect freedom from all offensive smell. For the table we think it will certainly supersede olive oil, as it is much cheaper, and to many of a more agreeable flavor. For the last purpose we have used a great deal of it, and while we can get it shall certainly never use olive oil. By Mr. Barnitz's mode of extracting it he gets a gallon from every bushel of seed. This fact we have asserted in an other place in the present number, and repeat it here to correct erroneous impressions that we perceive have been made on the public mind. Many persons suppose that they have only to take their seed to a common oil mill, and get a gallon of oil from a bushel; but this is a mistake; the seed must be freed from its hull, and to do this a machine (of the structure of which Mr. B. will give every information,) must be used. Mr. Barnitz has made a large quantity of this oil this fall, and showed it to us in all its stages. He at present gives 50 cents a bushel for sunflower seed, and gets a dollar a gallon for the oil. When the business gets established the price of seed will be considerable more, or that of oil less, as at the present prices a mill steadily at work would be very profitable; the oil cake nearly pays for the extraction of the oil, it being an excellent article of food for horses and cattle.

The chaff from the clover mill supplies an immense quantity of the finest manure for the farm. It is thrown into a large pile by the side of the mill, to rot, and is carried upon the land in the same manner as stable manure,—to which it is very superior. We should suppose that the addition of lime to this manure would be very useful.—*American Farmer.*

The following is from a German agricultural work, translated by the Editor of the Lancaster (Pa.) Examiner.

"Sunflower seed yields an excellent oil, richer than olive oil and yet equally bland and mild; it is also purer and more transparent, tinged with a slight shade of yellow. It is destitute of smell, and in taste somewhat resembles that of almonds. In Upper Saxony it is much used instead of olive oil. It is thought to be equally good and much more economical, as two gills of it will suffice where three gills of the other would be required. As a lamp oil it burns with a beautiful flame, producing no smoke and diffusing no disagreeable smell. Curriers have found it particularly useful in dressing leather, as it aids in imparting a permanent and clear black ebony.

"The leaves of the Sunflower, among other uses to which they may be applied, are serviceable in the art of coloring. They are to be dried in the shade, by spreading them thin on a table or a clean floor and turning them frequently. A small handful of these dried leaves boiled in a pint of soft water in a well glazed earthen vessel, with half a teaspoonful of alum added, is said to produce a beautiful and permanent yellow dye."

ART. CCCXXV.—*Address delivered before the Jefferson county Agricultural Society, at the annual Cattle Show and Fair at Watertown, on the 27th Sept* 1831. By Major EDMOND KIRBY.

From the interesting Address of Mr. Kirby, we make a few extracts, not having room to insert it entire.—*Ed.*

A liberal support of public institutions, is the characteristic of a highminded generous people: and to deserve such a charracter, is a fair object of honorable ambition. It is a gratifying reflection, that the labors of this society have contributed in some degree, to acquire for Jefferson county a good name abroad. And could our farmers be made sensible of the respect which attaches to the county, from the circumstance of our association being so well sustained, I am confident, that they would to a man, contribute to our funds, and enable us by a more extended list of premiums, to reach all the objects of production.

But however well others may think of us, we must not conceal from ourselves, that we are yet but upon the threshold of improvement, and that the whole field lies expanded before us. Though much has been accomplished, still more remains to be done, demanding united efforts and the most persevering zeal.

A leading defect in our system is the occupation of farms too large for our means of cultivation. This arises from the cheapness of land and dearness of labor. How many of us grasp more land than we can manage to advantage, and how frequently are we seen toiling behind the proper season of our work, with every operation hurried, and not one done properly, nor in its appropriate time. Seed is sown too late, upon ground imperfectly prepared; a feeble growth ensues, which comes forward struggling for the ascendency with noxious weeds. In laying down to grass, we often practice the miserable economy of saving seed by not using one half enough; and to supply the consequent deficiency of fodder, resort is had to pasturing our meadows fall and spring. In a few years June grass and Blue grass predominate, and the crop be

comes not worth the expense of harvesting; when we break up, to go through the same unproductive process. What farmer can thrive under such management? Most of you will say that this picture applies to my neighbour's farm, not mine. The exceptions are numerous and honorable; but is it not true, in some of its parts, of too many of us?

The remedy is simple and obvious. Let us limit our efforts to such a compass that we can till thoroughly all that we attempt to cultivate. Our toil will then become a pleasure; every thing will be done appropriately, and an abundant harvest will crown the year with gladness.

In farming, whatever is worth doing at all, is worth doing well.—This maxim applies especially, to the selection of stock. It is as easy to raise a colt of high blood, as it is an inferior one, and at four years old, the former will be worth twice as much as the latter.

Efforts are making by several members of the society, to introduce the improved breeds of neat cattle. Our pens to-day, exhibit specimens of both the Devonshire and short horn Durham breeds, crossed upon our common stock, from various parts of the county. We have also the gratification, through the liberality and enterprise of Messrs. Bosstwick and Buck, and several other gentlemen of Lowville, of a fine display of the full blood Durham cattle, which have been introduced by the former gentlemen into Lewis county, from the celebrated collection of Colonel Powell at Philadelphia, and an opportunity is afforded us; thus realising one of the important benefits of our society, of comparing these two breeds of cattle with each other, and both with our common stock. No man I think, can be at a loss which to prefer. So far as I am informed, wherever the shorthorn Durhams have been introduced, they have challenged competition, and been pronounced superior for draft, for the dairy, and for the butcher. Our long nourished prejudice is in favor of red cattle; but it will yield, when the superior excellence of the Durham breed becomes more generally known; and we shall no longer consider white marks as a blemish.

One of the most serious evils to which the farmer is exposed, is the fluctuation of the market for the products of his labor. This will ever be the case while we are dependent, for the disposal of our surplus, upon the policy or the wants of foreign countries. A steady market, at remunerating prices, is all we ask, and this, in regard to one of our most valuable staples, we have now a right to count upon.

Protecting duties upon wool and its manufacture have stood the test of experience. Both the wool grower and the manufacturer are prospering under them, while they operate injuriously upon no part of the country, nor upon any class of community, inasmuch as the fabric of wool can be purchased at lower prices than they could before these duties were imposed.

The domestic supply of wool is yet below the demand, and notwithstanding the high duties, large importations are constantly made. These will continue several years insuring to the wool grower a liberal price. But when a full supply shall be produced in the country, and importations cease, competition will regulate production, and it will continue to bear a fair price.

There is no part of the country better adapted to the raising of sheep than this. From the best information, it appears that our sheep winter as well, or better, than they do in any of the extensive wool growing counties. The destructive maladies, which sometimes sweep off whole flocks in Europe, are unknown among us. There is no stock that multiplies more rapidly than this, and none more readily reduced. We may bear in mind also, that no other stock is better calculated to promote the fertility of the soil. Every thing then invites attention to this branch of husbandry, and no farm should be without a flock of fine wooled sheep.

Of the various breeds of sheep to be found in the country, the Saxon is in highest repute, and its wool brings the highest price in market. The extensive importations of Saxon sheep, during the last few years, place them within the reach of every farmer, and bucks of full blood, and of every grade of mixture, may be procured without going out of the county. These animals thrive in our climate without any extraordinary attention, and crossed with our common sheep, much of the fine fleece of Saxony, is combined with the larger and more vigorous carcass of our native breed.

Nothing marks more strikingly the progress in agricultural science, than the degree of attention which is paid to gardens and to fruit. They constitute a thermometer, by which to judge the character of the farmer.

Art. CCCXXVI.—*Curious Vegetables.*

Among the many singular productions that fall under our notice, we have seen none more curious than the three we are about to describe; for the seed of which we were indebted to our excellent friend, Mr. Legare, editor of the Southern Agriculturist. They were raised in our garden. The first is a *Mammoth Bean*, the size of which would have satisfied even "Jack the Giant Killer," and we are not sure that it is not the identical one on which he went up to the moon! The pods of this bean weigh half a pound, and are 11 to 12 inches long, 2 to 2¼ wide, 1 to 1¼ thick, and the form that of a Turkish cimitar. The bean is of a beautiful coral color, the flowers pure white, very large and fragrant.

The second is a kind of Indian corn, with the husk *on each grain*. This is very curious. While growing, many of the stalks produced the grain on the *tassels* and had no ears; others produced ears like common corn; but the main crop was like the original—every grain enveloped in a thick husk, but set in the ear like common corn, with a husk over the whole, but scarcely any cob. It was sent to Mr. Legare, from Orangeburg, S. Carolina, where it was called *forage corn.*

The third is a singular kind of Squash, or more probably cucumber—the vine and flowers exhibiting evident marks of its being a connexion of the cucurbitaceæ family. Its root is perennial, vine a great runner, equal to the gourd, and fruit of the size and shape of a winter bell pear. It has but one seed, and that in the form of a large pumpkin seed, an inch long and half inch wide: this seed has no shell, and is the mere naked cotyledons of the future plant; and it is therefore necessary to plant the whole fruit. When vegetation commences the seed protrudes from the flower end of the fruit in the form of a cat's tongue. The fruit is cooked like early summer squashes, and is, we think, greatly superior to them—for our ability to

judge of them thus we are indebted to Mr. Legare, who politely sent us a good mess for our table. We succeeded in raising one vine, and have it now well protected for future bearing. Even this fall, however, it nearly matured its fruit. It is called *mango* in Charleston but improperly. *Quere*, its botanical name?—*American Farmer.*

[For the New-York Farmer.]

ART. CCCXXVII.—*Insects—'D. T.' and 'N. Darling.'*

MR. FLEET. There are few more accurate observers, and none more modest, or less inclined to say, or do, or think any thing, that would give offence to others, than my old friend 'D. T.'; and I should think your Correspondent, 'N. Darling,' very much such another sort of a man. They are both zealous seekers after truth, good reasoners, write well, and need not, I think, be at all apprehensive of having given any offence. If personally acquainted, they would have the most cordial regard for each other, and I hope they will pursue their investigations, and each give the results to the public. The subject is of general interest, and cannot fail to engage public attention. That a little collision of opinion has existed, is not at all strange, when we consider the great diversity of opinions that prevail, on most subjects, particularly in every thing connected with the natural history of Insects, of which we know so much less than is desirable. Close observation, is the only way to arrive at this kind of information; and by stating its results, in print, it may at once be made useful to many others. We should all regret the withdrawal of two of the ablest Correspondents of our Journals of Agriculture and Horticulture, the rather as practical men are not apt to be fond of appearing in print. They both mean well, and need devote no more time to apologise, or to giving assurances of good, and fair, and honest and friendly intentions. The readers of those Journals, will certainly expect to see the investigations pursued, and to be benefited by the labors of those highly intelligent Correspondents. H. G. S.

October 29, 1831.

[For the New-York Farmer.]

ART. CCCXXVIII.—*Pumpkin Bread.*

MR. FLEET—Sir, As you have in some of your former numbers furnished us with directions for making Rice Bread, Corn Pudding, &c., I presume you will not take it amiss if I call the attention of your readers to the value of the PUMPKIN. I presume there is not a vegetable on the face of the earth, more easily raised, or that is more productive; when it is considered that they will grow among corn, potatoes, or on any waste ground, and that the seed of one pumpkin will produce cart loads of fruit.

In the fall of 1829, I obtained the seed of a very superior pumpkin, part of which I planted the latter end of June following, on ground that I had raised two early crops of vegetables from, and comparatively of little value to me at that season of the year. I began to gather some of the fruit in October; its being extraordinary fine, I was anxious to save every grain of the seed, but the difficulty was how to dispose of the flesh or fruit. The common method of making it up into pies, would have been troublesome and expensive, and I thought them too good to feed swine with. I first gave some to my friends, on condition that they would save the seed. but they did not use them up fast enough; at length my wife tried experiments to work them up into Bread, Cakes, Pies, Puddings, &c., and it was not long before we discovered that they could be used so as to answer every purpose as Indian Meal, and that our family and friends considered it preferable to any thing of the kind made in the ordinary way.

The pumpkin is first deprived of the rind, and afterwards cut up in slices and boiled; when soft enough it is strained in a culender, and mashed up very fine; in this state it may be used up into pies, or mixed with flour for pudding, cake, &c. If it be intended for bread, it may be made up with wheaten flour in the proportion of one third to half. The spunge must be first set in the ordinary way with yeast in the flour, and the pumpkin worked in as it begins to rise. My wife's rule is, to use as much pumpkin as will bring the dough to a proper degree of stiffness without water. Care should be taken that the pumpkin is not too hot to scald the leaven. It requires more baking than bread made entirely of wheat. I am aware that pumpkin bread is nothing new, but I am informed that farmers in the country use Indian meal with their pumpkins instead of wheaten flour, which makes it more like pudding than bread. Those farmers that are in the habit of making their Bread with wheat and Indian, may find a market for their meal more easily than for pumpkins, and if they use these up into bread precisely in the same manner as they do their meal, I am persuaded they will find it very wholesome and palatable bread. Yours respectfully,

T. BRIDGEMAN.

New-York, Nov. 21, 1831.

REMARKS.—We have eaten of Mr. B's pumpkin bread, and find it very pleasant and superior.

ART. CCCXXIX.—*Importance and Expediency of Agricultural Societies in the State of New-York.*—By the EDITOR. [Continued from page 305.]

The evils most likely to affect the agricultural community of this country, will arise from the surplus production of the staple articles of our soil. It is evident that the productiveness of our country is destined to be vastly augmented by the increased number of agriculturlists, and by improvements in the management of farms. To add to the apprehended evils from these causes, it is known that farmers generally have a strong inclination to continue cultivating those leading articles to which they have been accustomed, until they are driven from them by inability to make their culture profitable. Taking these circumstances into view, the importance and benefit of having frequent and intimate enterchange of opinion among farmers, and the state and prospects of agriculture drawn up from the concentrated experience and wisdom of the great mass of agriculturists, and published abroad into every domicil in the state, can be easily seen.

In confirmation of the above sentiments, we give the following extract from the Western Tiller, published at Cincinnati.

The sales of public lands throughout the western states during the past year, which have been very extensive, and the occupation and settlement of great quantities of land that had previously been taken up upon speculation, are proofs that the population of this portion of the country is increasing with unexampled rapidity. This increase being almost entirely composed of farmers, we have reason to expect that in a very few years the surplus productions of the country will be increased to such an extent that if they continue to be as at present, confined to two or three staple articles, we shall be subject to the recurrence of periods of great depression and distress when ever the demand for our staples abroad, may be more limited than we require. Under these circumstances it appears to be a dictate of prudence that our agriculturists should devote some consideration to all the objects of culture which are within their power; and to guard themselves as much as possible from a recurrence of the distress which they suffered in 1820—21 and 22, from having a superabundance of corn, pork, wheat and flour; and no purchasers for these articles. The extension of the cultivation of the vine and the mulberry would form an important portion of the precautions which ought to be made use of; and the introduction of every new object of culture that can be naturalized in our climate would form another part. Our agricultural societies we hope will lose no opportunity of attention to this latter subject. We have little doubt that many articles may be added to the list of our productions by the adoption of proper measures for ascertaining all that can be cultivated here. The present is peculiarly the favorable period for providing against future contingencies; we hope it will not be neglected.

ART. CCCXXX.—*Plants of Mexico—Extract of a Letter from Henry Perrine, Esq., U. S. Consul, for Campeche, to the Secretary of the Treasury, dated*

New-York, 8th Nov. 1831.

SIR—The Treasury Circular of the 6th September, 1827, relative to the introduction of useful exotics into the United States, addressed to a portion of the American Consuls, directed the enquiries of the subscriber, (U. S. Consul for Campeche,) particularly to the logwood tree, which abounds in the Peninsula of Yucatan. His first communication to the Department, dated 1st January, 1829, contained a brief sketch of the information then obtained; and endeavored to attract its attention towards the *fibrous* plants of that region, as subjects of much greater and more immediate utility. Belonging to the natural family Silliacea, the species of the Genus Agave, appeared to him of transcendant importance. In his communication of Jan. 1st 1830, he again expressed that opinion, which has been confirmed by his subsequent observations in Tabasco, and sustained by all the intelligence acquired since his arrival in this city on the 13th August last. The utility of these plants has been noticed in almost every work on Mexico, from the conquest to the present day. According to Clavigero, the name of Mexico "quiere decir 'en el lentro del Maguey o' Pita o' Alve Americano" (Agave Americana of Humboldt.) A reference to the same author shows the manifold utility of these plants to the ancient Mexicans. Some species furnish themselves protecting enclosures, and afford impassable hedges to other objects of cultivation. From the juice of others are extracted honey, sugar, vinegar, *pulque* and ardent spirits. The pulque de Maguey, is the celebrated substitute for beer, cider, and wine—preferred even by foreigners to every other liquor. From the trunk and thickest portion of the leaves, roasted in the earth an agreeable food is obtained. The sap is applied externally to indolent sores and tumors, and a preparation is used internally for urinary and other diseases. The stalks serve for the beams, and the leaves for the roofs of huts. The thorns answer for lancets, awls, needles, arrow-heads, and other cutting and penetrating instruments. The fibrous substance of the leaves is, however, the most important gift of the Agave genus to Mexico. According to the species the fibre varies in quality from the coarsest hemp to the finest flax, and may be employed as a superior substitute for both. From it the Mexicans fabricated their thread and cordage, mats and bagging, shoes and clothing, webs, equivalent to cambric and canvass, the hammocks in which they are born, and the paper on which they painted their histories, and with which they adorned and adored their gods. The value of all the Agaves is enhanced by their indifference to soil, climate and season; by the simplicity of their cultivation, and by the facility of extracting and preparing their products. It is not, therefore, surprising that the ancient Mexicans used some part or preparation of these plants in their civil, military, and religious ceremonies; marriages and deaths; nor that they perpetuated an allusion to their properties in the name of their capital.

Humboldt, Poinset, Warden, and other foreigners, seem to consider the *fine fibres*, called Pita, a product of the same plant that produces the Pulque. But the Maguey, from which the drink is obtained, is a totally different species, and furnishes fibres of the coarsest texture. The Pita plant, like the Cacao, grows best in the shade; and its leaves are long, narrow and slender—the fibres of one of which accompany this communication. From this species, is probably fabricated in China that beautiful, glossy, fine and strong stuff, known here by the name of grass cloth. The Sisal Hemp of commerce is obtained from two varieties of another species of the Agave, which have long been cultivated in the vicinity of Merida. To this species the subsriber refers the Manilla Hemp—although he has not hitherto been able to obtain any satisfactotry account of the plant which produces it from our scientific and mercantile men, nor from books. Captain John White, of the Navy Yard at Charleston, states his impression that it is obtained from the bark of a species of Palm tree, but its texture does not confirm the inference above expressed by the subscriber.

Doctor Hernandez describes nineteen specimens of Agave, indigenous to Mexico, which vary more in the character of their interior substance than in the form and color of their leaves; and among these, the precise variety which prodnces the Manilla Hemp will probably be found. Some species are prized for the beauty of their flowers, and some for the odor, and others for the flavor of their fruit: but the subscriber limits his recommendation to Government of those which are most valuable, on account of the quantity and quality of their fibres. Their cultivation in the United States, he still believes, will form an era in our

agricultural and manufacturing prosperity, as distinguished as the invention of the cotton gins. He has shown, in his former communications, the almost insuperable obstacles to his introducing these plants, unaided and alone; but he had, nevertheless, the satisfaction to be apprised by Mr. Gordon, the Collector of New Orleans, that the young Sisal Hemp variety, sent by him to that city, had arrived in a thriving and vigorous condition. The subscriber believes, that an act of the Legislative Counsel of Florida, incorporating himself and associates into a company, for the cultivaion of tropical exotics, will be necessary to accomplish the views of Government, as manifested in the Treasury Circular of the 6th of September, 1827. He believes that he has information in his possession, sufficient to attract capital to enterprize. Once formed, the company might in the same vessel, bring other useful exotics although their pecuniary interests would confine them to the fibrous plants. Acclimated in the southern extremity of East Florida, they would gradually extend up to the adjoining States on the Gulf of Mexico and the Atlantic ocean. The seed of the Logwood would probably be coveted for Hedges, on account of its beauty, novelty and utility, The Arnatto would be propagated were it merely as an ornamental tree. The India Rubber would be sought at least as a curiosity, and so would the Pimento.

Ginger and Turmeric present the stimulus of immediate profit. Tree cotton would find a genial climate. The tropical shrubs whose leaves are a substitute for Indigo, and the tree whose fruit serves for soap, would likewise there find a home. The 'Ramon' would accompany them, to furnish with its leaves and tender branches, the food for domestic animals in the driest seasons, and with its fruit a subsistence for the human family in times of scarcity of corn. In short, every useful tropical plant would likely be introduced by an incorporated company for cultivating the fibrous species at the Southern extremity of East Florida.

ART. CCCXXXI.—*Miscellaneous, Original, and Selected.*

Dried Pumpkin—We have received, from a friend at Poughkeepsie, some dried pumpkin which from its sweetness appears to have been first stewed. We are of opinion that some improvements in preserving pumpkins would add much to the resources of domestic economy. In some districts of the country they are used in a great variety of ways.

Preserved Apples.—Mr. Alex. Walsh, of Lansingburgh, has presented us some apples the growth of the year 1830,—the Russet grown by Mr. W., and preserved in bran and sand. Those in the latter were in the finest state. Also a moderate size red and white apple, raised by a farmer east of Lansingburgh, and preserved in sand by Mr. F. Fordham, of the same place. This was as fair and in as sound a condition as though of the growth of this season.

Insects Emitting Light.—MR. FLEET, I observed in my lawn during the early part of October last, in the vicinity of this City, an insect of a grey color of the size and form of a small saw bug, but rather more elongated, which emitted light like the common lightning bug. Having never heard of such an insect, here or elsewhere, may I ask the admirers of Entomology among your subscribers and readers to give me some information on the subject. RUSTICUS,

New-York, Nov. 26, 1831.

Horse, Cattle and Sheep Stealers.—Many depredations are often committed, particularly in the State of New York, at this season of the year, it is highly necessary therefore that Farmers and others should be on their guard, as several suspicious persons have lately been too successful in Dutchess, Orange, and other Counties adjoining the North River.

"Farmers and others who own horses, will do well to keep a sharp look out. We have heard of *eight* valuable horses having been stolen within the same number of days, all within a few miles of us. There is unquestionable a bold gang of horse thieves prowling about the country."—*Palmyra Sentinel.*

The Editor of the New-York Farmer will render his subscribers an essential service by giving the above a place in his weekly and very useful publication.

Orange County, Nov. 23, 1831. A SUFFERER.

The Locust in perfecting its Wings occupies about two minutes from the time of the appearance of the nerves; both wings commence growing at the same moment exhibiting one of the most beautiful operations of nature, the eye of man ever beheld; the invisible particles of matter at first fall perpendicularly, and become congealed before they take a horizontal position; which circumstance causes considerable action resembling the breaking up of ice in front of a steam boat and such is the rapidity with which the particles cohere that it is difficult to discover without the closest investigation whether cuticle at first bends down or up in the formation.

I caused considerable agitation in the space which the wings afterwards occupied supposing it were possible the atmosphere contained generating properties; but the process not being in the least degree impeded, have concluded, that the body of the Locust, contains the fluid which is necessary for the formation of membraneous cuticle and that light and heat are essential agents in completing the operation.

By publishing the above in the New York Farmer you will oblige— W. J.

Erie, Pa. Nov. 25.

Adulteration of Wines.—Wines are adulterated with bitter lemons, or leaves of cherry-laurel, in order to impart to them a nutty flavor; with sweet brier, orrice root, clary and cherry-laurel water, and elder flowers, to give a high flavor; with alum, to render young and meagre wines bright; with cakes of pressed elderberries, to render faint colored port pale; with red sumac, to color white wines red; with oak saw-dust, or aloes, or husks of filberts, to give astringency to unripe wines; with tincture of raisin-seeds, to flavor fictitious port; and with a variety of spices, to render wine pungent.—*Ryan's Medical Jurisprudence.*

Drink for Horses.—Some of the Inn keepers on the western road have adopted the practice, recommended by a member of the Bath Agricultural Society, of boiling the corn given to horses, and giving them water to drink. It is most satisfactorily ascertained that three bushels of oats, barley, &c. so prepared, will keep the horses in better condition for working than double the quantity in a crude state.—*English pa.*

Productiveness of the Season.—In different counties the press has noticed extraordinary productions of the field and garden. This, with us, has been an unusually productive year for turnips. We have three, one from E. Goshen, measuring 26¼ inches round, and weighing 5⅜ lbs.; 2 from E. Bradford, one weighing 6¼ lbs., the other 5¾ lbs. A radish which grew in the garden of John Agnew, Kennett, measured 34 inches in length and 15 round. We received some very fine turnips from Delaware county, but not quite so large as those of Goshen and Bradford. A pumpkin raised in Adams co. weighed 160 lbs., and measured 9 feet in circumference.—*Westchester (Pennsylvania) Village Record.*

Mouldy Bread and Rancid Bacon.—The Journal des connaissance Usuelles, states that several persons in France have been nearly poisoned by the use of mouldy bread, and it adds also, that in some instances death has been produced by rancid bacon.

Mammoth Potatoe.—The Augusta Chronicle tells a story of a potatoe raised in that neighborhood which must be almost a match for those of the Irishman, who told that he was accustomed to sit on one end of them, while the other was roasting. The Augusta paper says, "A *Sweet Potatoe* was left at this office yesterday which weighs within a small fraction of *nine* pounds; its length (measuring its several crooks) 3 feet 11 1-5 inches; largest circumference 1 foot 3-10 inches, which size it maintains with little variation to the length of 1 foot 4 inches."

New-York Cattle Market, Bull's Head, Monday Nov. 28.—At market 800 head of Beef Cattle;—200 unsold; sales dull; average price $5¼.

Sheep—but few in market, and prices about the same as last week.

Hay sells from 62½ to 70 cts.

New-York Produce Market, November 28, 1831.

Ashes—Per 100 lbs. Pots, first sort, 1831, 5 15 to 5 20, Pearl, 5 25 to 5 30.

Barilla—duty free, Teneriffe, ton 33 00 to 45 00.

Beeswax—duty, 15 per cent ad. val. White, lb. 44 to 45, Yellow 20 to 00.

Bread—Navy, lb. 0 to 3¼, Pilot, 0 to 4½, Crackers, 5½ to 5¾.

Coal—duty, 6 cents per bushel, Liverpool, chal. 00 00 to 13 00, Scotch 00 00 to 00 00, Sidney and Bridgeport 00 00 to 9 50, Albion 9 00 to 00 00, Virginia 6 75 to 9 25, Anthracite, ton, 6 00 to 7 00.

Cordage—duty, tarred, 4 cents, untarred, 5 cents per lb. Foreign, lb. 11 to 00, American, cwt. 00 00 to 00 00.

Cotton—duty, 3 cents per lb. New-Orleans, lb. 10 to 12, Upland 07 to 10, Alabama 8 to 11, Tennessee 8 to 9½.

Cotton Bagging—duty, 5 cents per square yard, Hemp, yd. 13 to 17, Flax 12½ to 16, Do. American 19 to 21.

Feathers—duty, 15 per cent. ad. val. Live, Foreign, lb. 14 to 20, American 35 to 37½.

Flax—duty, $30 per ton, Russia, lb. 10 to 11, American 6 to 8.

Flour & Meal—N.Y. superfine, bbl. 00 00 to 5 62, Troy 0 00 to 5 87, Western Canal 6 to 6 25, Ohio, 5 75 to 5 87, Philadelphia 0 00 to 5 87, Baltimore, Howard-st. 5 75 to 0 00, Richmond, city mills, 6 00 to 6 12, Do. country, 5 50 to 5 62, Alexandria and Georgetown 5 50 to 5 81, Fredricksburg 5 50 to 5 62, Petersburg 5 50 to 5 62½, Scratched and fine 5 25 to 5 37, Middlings, fine, 5 00 to 5 25, Rye Flour 4 75 to 0 00, Indian Meal 3 62 to 0 00, Do. do. hhd. 17 00 to 00 00.

Grain—Wheat, N. River, bushel, 1 16 to 1 20, Do. Genesee 1 22 to 1 28, Do. Virginia 1 15 to 1 18, Do. N. Carolina 1 00 to 1 12, Rye, Northern, 88 to 90, Corn, Yellow North, 68 to 70, White, L. Island and Jersey 70 to 00, Southern 55 to 68, Barley, N. R. 1 25 to 1 30, Oats, South and North, 40 to 47, Peas, white dry, 7 bushel, 6 00 to 7 00, Do. black eyed, bushel, 00 to 00, Beans, per tierce. 7 bushel, 7 50 to 8 50

Hemp—duty, on Russia, $60 per ton, Manilla, 15 per cent ad. val., Yarns, 5 cents per lb. Russia, ton, 225 00 to 240 00, Manilla 240 00 to 000 00, Sisal 000 00 to 000 00, American, dew-rot, 150 00 to 000 00, Yarns, Kentucky, lb. 00 to 00.

Honey—duty, 15 per cent. ad. val. Havana, gal. 50 to 51.

Hops—first sort, 1831, lbs. 12 to 00, second sort, 10 to 00.

Horns—duty, 15 per cent. ad. val., Horns, Ox, per 100, 5 00 to 20 00.

Lumber—Yard selling prices, Boards, N. River, M. ft. 00 00 to 15 00, Do. Eastern Pine, 16 00 to 17 00, Do. Albany do. pce. 16 to 17, Plank, Geo. do. M. ft. 25 00 to 35 00, Staves, W.O. Pipe, M. 56 00 to 60 00, Do. hhd. 36 00 to 40 00, Do. bbl. 29 00 to 32 00, Do. R. O. hhd. 27 00 to 00 00, Heading, W. O. 54 00 to 55 00, Hoops 25 00 to 30 00, Scantling, Pine, 15 00 to 16 00, Do. Oak, 20 00 to 25 00, Timber, Oak, sq. ft. 20 to 25, Do. Geo. Yellow Pine 25 to 30, Shingles, Cypress, M. 3 75 to 4 00, Do. Pine, bdl. 2 50 to 3 00.

Provisions—Beef, Mess, bbl. 7 25 to 7 50, Prime 4 75 to 5 21, Cargo 0 00 to 0 00, Butter, N.Y. dairy, lb. 13 to 16, Shipping 10½ to 11½, Philadelphia 10 to 11, Hog's Lard 8½ to 9, Pork, Mess, bbl. 12 00 to 13 00, Prime 10 00 to 11 00, Cargo 00 00 to 00 00, Cheese, American, lb. 5 to 6½, Hams, Virginia 10 to 00, Northern 10 to 00.

Rags—duty, Free, Foreign, lb. 4 to 8¾, Country 3 to 5.

Rice—100 lb. 350 to 3 75.

Salt—duty, 15 cents per 56 lbs. Turks Island, bush. 57 to 58, Isle of May 47 to 48, St. Ubes 48 to 49, Cadiz 00 to 47, Lisbon 00 to 48, Liverpool, ground, 00 to 44, Do. blown 00 to 00, Do. do. sack, 2 15 to 2 25.

Sugar—duty, Brown 3, White clayed, 4, Refined, 10 to 12 cents per lb., British Island, lb. 6 to 9, St. Croix 7 to 9, New-Orleans 5 to 7, Havana, white, 9½ to 11½, Do. brown, 6½ to 7½, Muscovado 5 to 7, Porto Rico, 5½ to 7½, Brazil, white, 6½ to 8½, Do. brown, 5 to 6¼, Manilla, brown, 6½ to 7, Lump 13 to 14, Loaf 14½ to 16½.

Sumac—duty, 12 per cent. Sicily, ton, 85 00 to 90 00, Trieste 55 00 to 60 00, American 35 00 to 40 00.

Tallow—duty, 1 cent. per lb. Foreign, lb. 00 to 00, American 10 to 10½.

Wool—duty, 4 cents per lb. and 50 per cent. ad-val. Merino, Am. Fleece, lb. 45 to 70, Do. pulled 45 to 60, Common 25 to 35, Pulled, spinning, 00 to 50, Lambs, 1st quality, 53 to 56, Do. 2d do. 38 to 40 Do. 3d do. 28 to 30.

[For the New-York Farmer.]

ART. CCCXXXII.—*Agricultural Report for the County of Albany, Dec.* 1831. By J. B.

Our *Winter* was of an ordinary character, except that it gave us a few days of uncommonly severe cold, which depressed the thermometer to 18 and 20 degrees below zero.* This, it is believed proved fatal to many peach trees upon the borders of the Hudson. And it has been remarked to me by an intelligent friend, that this degree of cold is always destructive to the blossom, and often to the vitality of the peach. *Spring* opened propitiously. The fine weather of the last of April and first of May caused the fruit trees to put forth their blossoms ten or twelve days earlier than usual, and called into active life myriads of insects to prey upon their young fruit. This was an excellent *seed time* to the farmer who *keeps up with his work*, and had his grounds prepared. The *Summer* has been wet and warm, favorable to grass and pasture, but generally injurious to the ripening grain crop. The *Autumn* has been remarkably favorable for the labors of husbandry. The late crops have been abundant, and well secured. On the whole, the season may be denominated a wet one, and the crop rather more than a fair average of years.

Wheat, which may be considered a principal staple, was seriously injured by the close, hot and moist state of the weather in July, which caused mildew and premature ripeness. The diminution from these causes, was different on different soils—heavy crops upon moist flat surfaces suffering most.

The average shrinkage was from 25 to 30 per cent. More ground was sown, however, which in part made up for the difficulty. There seems to be no effectual remedy for the mildew. It is generated by a muggish state of the atmosphere. The best preventions are, good drainage, narrow ridges where the surface is flat and wet, and avoiding the application of fresh manures to the crop. I have seen a top dressing of short manure, harrowed in with the seed, on stiff clays, serve a beneficial purpose in preserving the crop from the severity of winter. Although often recommended, and generally practised, it is well to repeat, that smut is prevented by soaking the seed in brine, and liming it before sowing.

Barley is becoming every year a more general and profitable staple, and most of our lands are well adapted to its culture. The present year's crop has been rather inferior in quality, and deficient in quantity.—This has in part been owing to late sowing, but principally to the hot weather in July, which ripened it suddenly, before the grain had attained its full growth.—The price it has borne in market has however rendered it, this year, our best crop— having ranged from one dollar to one dollar three eights per bushel.

Indian Corn has done remarkably well, except where it was injudiciously planted upon wet or stiff grounds. Taking the range of counties upon the river, above the highlands, through which I travelled in August, I estimate the crop one third beyond the ordinary average. I observe that the practice of cutting and immediately stooking the whole crop, as soon as the grain is glazed, is becoming more general. It certainly is an economy of labor, when rightly managed, and clears the ground in time for a crop of winter grain; and it also adds greatly to the fodder, without prejudice to the corn.

Hay has been abundant, though, as is the case in all wet seasons, its quality is rather inferior: for it is not the volume, so much as the nutritive properties, which give to hay its intrinsic value. These last depend on the season, the soil, the varieties of grass and time of cutting. A dry season, or a dry soil, other circumstances being alike, will produce richer hay than a wet season or a wet soil, because in the former the nutritive qualities are far more concentrated. If the comparison may be allowed in these times of temperance, the first may be likened to strong, and the latter to weak grog, the nutriment, in one being compared to the alcohol in the other. The grasses differ greatly in their nutritive properties; and it may almost be laid down as a general rule, that these are in an inverse ratio to their respective volumes. The nutritive matter varies, in the grasses of permanent duration, according to Loudon, from 19 to 82 per cent: the short jointed and creeping species abound generally most in it, as the blue grass (*Poa compressa*) spear grass (*P. pratensis*) fiorin (*Agrostis stolonifera*) &c.

Rye suffered from the same causes as wheat and barley, and the crop is short and inferior.

Fruit. The apple has given but a scanty crop, the plum hardly any thing, and the peach a mere nothing; but pears and grapes have been abundant, and of pretty good quality. Quinces, and the small fruits of the garden, have also been abundant. The failure of the peach may be ascribed to the unpropitious winter, that of the apple and plum, to the great product of the preceding year, which diminished the production of fruit buds, and to the depredations of the curculio, which were never more numerous. It is well known that orchards do not produce great crops two years in succession, the cause of which is easily explained. The vital energies of the trees are so exhausted in maintaining the fruit, and producing wood buds, which demand the first care of the parent in the vegetable economy, that there is no time to produce the germs of a new crop, before the frosts of autumn arrest the work of elaboration. Hence a tree that carries its fruit late, seldom produces crops in successive years; while those which ripen their fruit early, as the cherry, the Siberian crab,

*It is worthy of remark, that at this time the cold was 14 degrees greater, according to the Genessee Farmer, at Albany than at Rochester, in about the same parallel of latitude. This apparent difference, I apprehend, however, was not altogether real: for the observations were made at Albany at sunrise, and at Rochester at 10 A. M. if my recollection is correct. The difference, however, was considerable, and may be ascribed to two causes, viz.: the ameliorating influence of the waters of Lake Ontario upon the north-west winds which blow at Rochester, and the influence of the south west winds which prevail a great part of the year in the valley of the Mississippi, and along the shores of Lakes Erie and Ontario.—The great lakes never freeze over, and of course are constantly giving off caloric, and raising the temperature of the winds, which sweep their surface during the winter months. The south-west winds are believed to be a continuation of the trade winds, obstructed and changed in their direction by the table lands of Mexico; and coming from tropical latitudes, diffuse much warmth in their passage north. Their influence seems to extend, in this latitude, as far east as Skeneteles Lake and the mouth of the Oswego river. To this boundary the peach flourishes and is a pretty constant bearer; east of it, both the crop and the vitality of the tree are precarious.—Notwithstanding the influence of these causes, in moderating the severity of cold, the mean temperature for 1830, according to the academic returns, was 1 degree 33 minutes higher at Albany than at Rochester.

&c. or produce moderate crops, are frequently annual bearers.

The question has been asked in the Farmer, if facts could be adduced to prove, that fruit trees, removed from the north to the south, do better than when transferred from the south to the north. In answer to the inquiry, I would beg leave to remark, that most of our fruits are the natural productions of climates warmer than that which we occupy. The cherry was originally from Pontus; the peach from Persia, the plum from Syria, and most of our esteemed varieties of the pear from France, the Netherlands and the south of Europe. Hence the apprehension that in removing them farther from their natural climate, to the north, they will become impatient of the cold, and disappoint our hopes. The mala carle apple of Italy, and even the admired Spitzenburgh, of Esopus, will not succeed in the colder climate of England, without the aid of a wall; and many plants from the middle states will not at first bear the rigors of a northern winter. But when varieties have originated, or plants been raised from seeds, and acclimated in a higher latitude, they have acquired a more hardy habit, and have invariably grown and produced well on removal to a warmer temperature. Thus the cherries and apples from Russia, and the fruits of Scotland and Canada, are represented in the British pomological works, as proving remarkably healthy and prolific in England. Plants, within the zone of their natural growth, are more apt, like animals, to be hardy and prolific, and less sensitive to the vicissitudes of the seasons, in the north, than in the south of their respective zones. This fact has been ably illustrated by a recent writer in a Philadelphia periodical, whose remarks I think were published in the Farmer. But this is digressing from my subject.

The season has been favorable for *Roots*. The potato and turnip, which constitute our principal crops of this kind, have been abundant, and their quality better than ordinary. A fact came under my observation in the potato culture, which satisfied me more than ever, of the impolicy of taking two successive crops of the same kind from one field. Contiguous, and in the same field, I planted potatoes on three strips of ground, on one of which I had beans in 1830, on another potatoes last year; and on a third potatoes the two preceding years. The strips were treated alike, and the crop dug at the same time. The result was, that on the bean ground the product was uncommonly large; on the second strip, which I cropped with potatoes the preceding year, it was fifty per cent. less, while on the ground where potatoes had grown the two preceding years, I had little more than a return of seed. This satisfied me, that though all crops take from the soil food in common, yet that each species requires some specific food, which others do not take; and that alternation or change of crops is essential to good husbandry.

The importance of reclaiming some of our best lands, by draining, and of economizing manures, subjects intimately connected with the improvement of agriculture, are daily becoming more apparent to our farmers; and on the whole, I think the prospect of a steady advance in rural, as well as intellectual and moral improvement, is highly flattering. J. B.

Remarks:—We have frequently urged our subscribers to furnish us annual reports of the state of agriculture in their respective counties, or in their vicinity. Independent of the information which would be collected for the public good, there would be a habit of observation acquired by those who make these reports. For a young man we know not what would be more beneficial. Throughout the whole year, his eye and his mind would be observant. Why will not fathers *educate* their sons to farming?

[For the New-York Farmer.]

Art. CCCXXXIII.—*The Country Farmer.*—No. XII.—*On the choice of suitable Land for Farming.*

Mr. Fleet—The remark will, at first view, strike most persons as a kind of contradiction in terms, that the very richest land, is not that on which Farmers have the best success, and yet nothing is more certain. The first quality of land, is generally considered to be river alluvion: next to this, the richest upland, such as a fat and tenacious loam; then a sandy loam, or sand and clay; and finally a dry gravel. Of all these descriptions of soil, 1st, 2d, 3d, and 4th, the last is that on which we generally find the best Farmers, not only, but the most successful Farming. I have traversed most parts of the United States, from Maine to North Carolina, and between the great western Lakes and the Atlantic, and have every where seen proof of the correctness of these remarks. The first choice of land, in the settlement of every new country, taking the qualities as designated above, is always in the numerical order, as they stand; and the 4th, after some 20 to 50 years, always becomes, except in some very rare cases of river alluvion, the first, and the whole order is reversed! There may be particular exceptions, but as a general remark, the above observations will be found, on the strictest examination, to be sanctioned by general facts. Such was the case, in the early history of the settlement of this continent, such it has been, in every part of the country, and such it still is, as settlements advance, every where. One generation succeeds another, the second invariably adopting different views from the first, if continuing to reside on the same land; and yet all others, all of those who are uninstructed by personal experience and observation, or very nearly all, advance to the wilds with the old fashioned errors of opinion! Were we to omit taking into consideration the grounds of this mistake, the general perseverance in it, would seem to imply a strange want of prudent foresight, or even a want of common understanding.—Let us examine this matter a little, for it is one of very general importance.

Lands in a state of nature, wild lands, to which so large a proportion of the young men resort, for future Farms, if clothed with timber, forest trees, present very delusive appearances, such, exactly, as would be likely to mislead the judgment. Excepting only the river alluvion, universally sought as of the first quality, almost without looking at the soil, the three other qualities are found, the second and third, covered with a thick deposite of vegetable matter, leaves, partly decayed, '*soft as an under bed*,' '*black as my shoe*.'—Such is the surface. On tearing up some handfuls of the ground, this is well blackened, of course, and little is thought of looking for the sub-soil, as those invariably do, who have once been deceived by black muck, and these soft beds of leaves. Brooks are plenty, in such woods though they will be scarce, on the same land, when opened to the sun, and the blankets and bed

of leaves are removed, so as to dry the surface of the ground.

On the 4th quality of land, the dry and warm gravel, there is none of this great store of slowly rotting leaves, because they rot rapidly, and fires often burn them up, the land being dry; and brooks, and springs, are even more scarce than they will be when the woods are destroyed. The ground, having its surface uncovered, and the woods generally more open, presents an appearance of nakedness, especially after having passed over black muck lands, shrouded in leaves.—With no allowance for the far greater frequency of fires, to burn off the leaves, and to destroy much of the growth of wood, keeping the woods more open, *this* land is condemned, for barrenness, and the land of *muck* is chosen, all blanketed and carpeted with leaves. We may, on reading this, admitting it to be a true and faithful outline or delineation, all agree that we would act more wisely, and yet 99 in a hundred of us, uninstructed by experience, would probably choose the carpeted land, as 99 in a hundred have done before, in all parts of the United States. I would not, and did not, but my Father did, much to his regret, and I had the benefit of his experience, as well as my own, having been born and bred on one of those carpeted Farms.

Land, that is cold and wet, may bear immense growths of trees, as of the elm, ash, basswood, birch, beach, maple and hemlock; and having a very thick shade, the ground will be cold, and wet, and the leaves must, of course, decay very slowly. Hence the carpeting, which is, invariably, a sure indication of either cold, or wet land, or of both. If of both, it never will make a farm for grain; and grass, for pasture, and for hay, which grows on such land, is always very inferior in richness, to that grown on land that is warm and dry. The difference is very great. The most nutritious grass, grows only where the land is so dry, and warm, that it must be sown frequently with seed, in order to keep up the sward. This is what I call a *medium soil*, good, alike for grass and grain, on which I should no more expect crops of grass, except from seed, than of grain. One acre of such ground, in pasture, or meadow, will keep as much stock as one and a half, or even two, or three, of your black muck cold and wet grass land. The appearance, to be sure, in pasture, will be very different. The grass may be very long, in your wet, cold land pasture, but yet very poor feed: in the other, it will be far more nutritious, short and sweet, like a well told story.

With land that is dry and warm, the good Husbandman, may always succeed in getting good crops. He may even make the soil as fertile as that of the very richest of land, and far more sure in its crops. Good Husbandry, constantly enriches the soil. But it is almost impossible to do this, with land naturally cold, and wet. It has not warmth enough, of temperament, to be sensitive to kind treatment, but is like some men, so phlegmatic, as to offer no principle of life to act upon. Heat, and cold, are always antipodes. You can never, by the utmost kindness, overcome natural antipathies. The very cause of the muck, which misleads so many in the choice of lands, is a natural coldness in the soil, where leaves are *preserved from decay*, by cold, and by wet, not moisture, but an excess of wetness. Such lands, when cleared, will produce grain crops, while the muck lasts, and is rotting by the power of the sun, but is sterile, ever afterwards, unless covered with a new soil, made artificially, and at more expense than the cost of warm and good land. This can be effected by trench-ploughing, under-draining, quick lime as a manure, bringing up the hard-pan, almost always the only sub-soil of mucky lands, but the cost is too great for any thing but experiment, and on a small scale. It will be done, when lands, from being scarce, shall be worth 50 dollars an acre, but that time is far distant.

This is a long story Mr. Editor, as it will seem to those of your readers, if any such there be, who take no interest in knowing how to appreciate the different qualities of land, for Farming. I venture to say, however, that no topic yet embraced in these Papers, is of more general interest, to your Agricultural and Horticultural readers, and that none of the Nos. will be more extensively and attentively read by them, particularly the Farmers, than this and the three next, which I mean to devote to the same subject.

I shall not attempt to speak of soils of all descriptions, land of every quality, but dwell principally on the two leading characteristics, of *cold and wet land*, underlaid by *hard-pan*; and *warm and dry land*, properly the *medium soils*, however constituted, closing with some observations on good grazing and meadow land, for dairy and stock Farms.

Sept. 16, 1831.

[For the New-York Farmer.]

ART. CCCXXXIV.— *Influence of the Moon on Vegetation.*

MR. EDITOR: There is a question intimately connected with agriculture which I should be pleased to have decided by actual experiment; and it has occurred to me that your agricultural readers might with very little inconvenience make the experiment necessary in order to put the question for ever at rest, and communicate to you the results of their observations. The question is this—viz.: *Has the moon any influence on vegetation* &c., so that it is of any advantage to observe its phases in planting, in spreading manure, cutting timber, killing beef or pork, &c.?

You are aware that such opinions prevail very extensively among our Farmers. Many a Pennsylvania Farmer would not for any consideration, be without his large German almanac, in which the times for planting, sowing, killing meat, spreading manure &c. according to the moon's place in the zodiac, are particularly marked. I know that many intelligent and successful Farmers do not consider this question worth a moment's consideration, and to propose it excites their ridicule. I once asked a shrewd Farmer whether he observed the moon in planting his potatoes; and he answered very cavilierly that he planted in the earth and not in the moon—meaning I suppose that he took care that his ground was in good order and let the moon pursue her own course. Perhaps he was right, but I am not sure of it. This is one of those questions which is to be decided not by abstract reasoning, but by experiment. If the fact be so that the moon has an influence in these matters,—in other words if by planting at a certain time of the moon, you have a good crop, and planting at another a bad one, all your arguments *a priori* are not worth a rush. All true philosophy depends on experiments. If facts show that the moon has influence, all the reasoning in

the world cannot invalidate these facts. The results of chemical analysis of various substances are very different from what the most sagacious mind could have conjectured before experiments were made. It matters not, that we cannot see any connexion between vegetation and the place of the moon at the time when seeds are committed to the earth. If they produce well when planted at one time and not so well when planted at another it is sufficient for all practical and useful purposes.

A single experiment is not sufficient to decide this question. Experiments ought to be made for several years in succession by several persons, and the result of the whole recorded; so that if there is no foundation for the prevailing opinion that the moon has influence in these matters, Farmers may not postpone doing their work in favorable weather waiting for the moon to get in the right place. I am somewhat sceptical on this subject, yet some facts have been stated to me by practical Farmers which I am unable to contradict. For instance a German Farmer in Pennsylvania (and there are no better Farmers in our country) will not cart out and spread his manure particularly on his meadow lands during the first two quarters of the moon; because as one of them assured, it would rise with the grass, injure the crop and stop the scythe in cutting; and on the other hand, if spread at the right season, it would sink to the ground and produce the effect intended. In like manner flax spread out to rot at one time of the moon, would remain on the top of the grass, so as to be easily lifted, and at another time, it would sink and be difficult to rake up. I believe the general rule is to plant potatoes &c. in the old of the moon or rather when she is in Libra, Scorpio &c., and vegetables which bear the fruit above the ground, when she is in Aries, Taurus &c. Meat killed in the decrease of the moon is said to shrink in cooking and that killed in the increase to expand in roasting and boiling. There are also other matters connected with husbandry which according to the doctrine of lunar influence must be attended to at certain times.

A little attention on the part of your numerous agricultural readers, would in the course of a year or two put the question at rest, and perhaps discoveries might be made that would be beneficial to themselves and their children. If any one should think worth while to make experiments on this subject, it is hoped he will be particular in recording the place of the moon and the day of the month when he plants &c. so as to prevent the possibility of a mistake.

If the results of their experiments should be sent to you, you will be able to inform your readers of the general result. C.

[For the New-York Farmer.]

ART. CCCXXXV.—*Convention in the City of Albany, for the Organization of a State Agricultural Society.*

SIR—In your paper of the 17th inst., I am pleased to observe renewed intimations of the expediency of organizing *State and County Agricultural Societies.* As this subject has been too little attended to amid the many associations having for their object the advancement of the Country's good, I hope some public spirited and experienced minds will revise and mature a sensible, practical and popular plan, which shall tend to concentrate some of the agricultural talent, experience and enterprise of this great State—we are behind the age and behind some of our sister States in our agriculture, while our soil and facilities are such as offer every encouragement to the cultivator.

I am opposed to asking the State for any aid, whatever, for the support of an Agricultural Society, believing that there is sufficient public spirit in the community to maintain such an organization as is required, without any foreign assistance. As you have solicited correspondents to lend you their views on this subject, I will briefly state mine, that, it is highly expedient that a Convention be held the present Winter, in the City of Albany, being central, composed of individuals from the various counties of the State, engaged or interested in agriculture, whose business it shall be to form a State Agricultural Society. I therefore propose that such a Convention be announced in your paper, to take place at the City of Albany, on the *fourteenth day of February*, next, 1832.

Saratoga County, Dec. 1st, 1831.

REMARKS:—The above is from a very respectable source. We hope Editors in every county of the State will notice the day, and use their influence to have delegates sent to Albany. In some instances, perhaps it will be found expedient to appoint members of the Legislature to the Convention.

We should be pleased to have not only a "sensible, practical and popular plan," but hints and suggestions on the formation of State and County Societies —*Ed.*

ART. CCCXXXVI.—*Formation of Agricultural Societies in the State of New-York.* To the Editor of the New-York Farmer.

SIR: I am pleased to see your occasional notices of the state of the public mind, in this State, in favor of *State and County Societies of Agriculture.* Horticulture, seems rather to be the favorite of the day; but these Societies are actually preparing the public mind for combined effort, in Agriculture and Horticulture. When ever the time comes for a general movment, it will be necessary to contemplate both subjects, as departments. In several of the Horticultural Societies, now in successful operation, there is a manifest, and I think an increasing disposition, to extend their views also to Agriculture, so as to bring in the actual Farmers, which is certainly very desirable. This can only be done, generally, by making Farming and Gardening the general objects, each as a department, under separate Committees. If gentlemen, engaged in the Horticultural Societies, have the same views of this subject, as here expressed, they will strike out plans for amendment; and you would do well to ask that they be made public, through the medium of your Journal.

Suppose, for example, that the Horticulturists of the County of Rensselaer, impressed with these views call a general Meeting, some time during the coming Winter, of the Farmers, Gardeners and Horticulturists, to take into consideration the propriety of forming a County Agricultural and Horticultural Society. Should the plan be approved, the existing Horticultu-

ral Society, would become one department, to provide for which would require but a small amendment of its present Constitution and By-Laws. So, also, of other Horticultural Societies: and, possibly, the Agricultural Societies, might do well to adopt the reform of embracing Horticulture. Such, I think, is the natural tendency of things.

It would, perhaps, be well, if gentlemen of experience in such matters, would draw up suitable Articles of Association, for such Societies, or a Constitution, and By-Laws, and submit them to the public, through the medium of the Journals of Agriculture and Horticulture. With a view to a *State Society*, under the patronage of the Laws, it would be well to have *one form* of Constitution, in all the *County Societies*, so that they could the more easily, become branches, by-and-by, auxiliary to the State Society. We are advancing toward such a state of things,—a *State Society of Agriculture and Horticulture*,—under a liberal provision of State patronage,—and it should be the business of every truly patriotic cultivator of the soil, to aid in the coming of such an effort for the public good.

The *culture of the Vine*, alone, is worthy of a spirited effort of the *People*, by their *Agents*, the *Legislature*. So, also, is that of the *Mulberry*, and the *Silk Worm*, and the *Silk Manufacture*, to say nothing of general improvement. There is ample ground for action. In order to demonstrate this, in relation to the *Vine Culture*, and *Silk*, my first leisure shall be devoted to a due arrangment of some important facts, taken from a late Report of American Commerce, by the Secretary of the Treasury of the United States. COLUMELLA.

November 25, 1831.

REMARKS:—We are pleased with the general views of Columella. The New-York Horticultural Society should take the lead. Application to the Legislature could be made to amend the act of incorporation, and at the same time a petition presented to authorize the treasurer of the defunct Agricultural Society of this County, to pay over the funds in his hands to the treasurer of the Horticultural Society. These objects can be easily accomplished. The present society can still move on in its operations. The only alteration is a revision of the constitution, and an enlargement of the sphere of action. Those who are at the head of the Society must do something, or they will have the honor of leading it to the shades of forgetfulness, instead of reviving it, and extending its usefulness.—They were not honored with offices, merely to eat, drink, and dance, but to enlarge the resources of the Society for doing good, and to increase its respectability at home and abroad.—*Ed.*

[For the New-York Farmer.]

ART. CCCXXXVII.—*Sale of Improved Durham Short Horned Cattle on the 1st of November last, owned and sold by* S. P. BRITTAN, *at his Farm in Elizabeth Town, (N. J.)*

Miss Darlington, red and white, imported in the month of July, 1829, by Henry De Groot, Esq.—Got by the thorough-bred and celebrated Durham bull Wellington, who served cows at 5 guineas each. This cow is a superior milker; she has raised her calf on *two* teats only, and has given besides that, about two and a half gallons of milk per day. Purchased by Edward Riggs, Esq., Newark, N. J, $96.

Daisy, 4 years old, black and white; got by Barmton, who was imported in 1822. Dam, the imported cow Cassandria, bred by Charles Collins, Esq. of England, got by old Barmton, out of Moss Rose, by Favorite. Cassandria was also imported in 1822.—Daisy's milk is of a superior quality, and she is one of the easiest keepers that is to be found. Purchased by Mr. Bozebeen, Bottlehill, $57.

Linda, 5 or 6 years old, yellow and white. It is to be regretted that the pedigree of this famous cow cannot be had. She was bred by an English gentleman, who is now dead. She is a good milker, and we suppose her to be three-fourths, if not entirely full blood. Purchased by H. Hartshorn, Esq., $37.

Miss Dishley, mostly red, 3 years old; got by the thorough-bred and imported short horned bull Dishley. This heifer is kind, fine for milk, and a remarkable easy keeper. Dam, Brindle Rose, one of the most superior native milkers that is to be found. Purchased by Daniel Fox, Esq., $60.

Lady Durham, red, 3 years old; got by the thorough-bred bull Durham, out of a fine cow from Brindle Rose. Lady Durham is without exception the best milker of her age that the owner ever knew. Purchased by Dr. Hosack, $101.

Patty, white, calved in 1826; got by Dishley.—Dam, a full blood Holderness. Patty is a superior cow for milk; she gave 22 *quarts* per day, for a number of weeks together. Purchased by Rev. W. T. Hamilton, $61.

Matilda, mostly white, 3 years old; got by Durham; dam, Patty. This is a fine heifer for milk, and as gentle as a lamb. Purchased by Dr. Hosack, $86.

Peggy, dark yellow and white, 1 year old; got by the thorough full bred Bull Banquo, who was bred by Hare Powell, Esq. of Philadelphia; begotten by the imported Bull Malcolm, out of the imported cow Virginia, got by General, dam Rosemary, and bred by J. C. Curwen, Esq. of England. Purchased by Dr. Hosack, $61.

Comet, speckled, red and white, 2 years old; got by Durham; dam, Gaudy, by the thorough bred Bull Dishley. Purchased by J. T. Woodruff, $71.

Shepherdess, roan, 5 years old, full sister to Patty. Purchased by W. Wallace, Esq., $59.

Lady Carman, spotted, red and white, heifer calf, got by Banquo; dam, Miss Darlington. Purchased by Edward Riggs, Esq., $66.

Pompy, bull calf, white, got by Banquo; dam Matilda. Purchased by George Francis. $66.

Homer, bull calf, yellow and white; got by Banquo, dam, Miss Dishley. Purchased by Richard Townley, Esq., $27.

Independence, bull calf, spotted, mosly white; got by Banquo; dam, Daisy. Purchased by Mr. Bozebeen, $66.

Snowdrop, heifer calf, white; got by Banquo; dam, Patty. Purchased by H. Hartshorn, Esq., $66.

Stately, heifer calf, mostly red; got by Banquo; dam Princess Charlotte, a superior half-blood, now owned by Thomas Salter, Esq. Purchased by George Francis, $34.

Lady Stanhope, speckled; got in England, by a bull bred by Wilkinson, of Lauton, whose sire was out of a favorite cow, got by the best bull in the *world*.

This heifer, though not quite 2 years old, is in calf, by Banquo; dam, Miss Darlington. Purchased by R. Townley, Esq., $100.

Champion, 1 year old, red and white; got by Durham; dam, Gaudy. Purchased by John Brentnall, Esq., $50.

Favourite, bull calf, red and white; got by Major, from Durham, whose dam was got by Dishley, out of a first rate cow of the Eaton stock; dam Shepherdess. Purchased by W. Wallace, Esq., $66.

Africanus, black, 2 years old; got by Chilton, out of a superior cow whose stock was noted as great milkers and known to be descended from the imported bull owned by Hartshorn, Smith, and others. Purchased by Mr. Lyon, $20.

Sally, red roan, 2 years old; got by a bull from Dishley; dam, a cow got by Dishley. Purchased by D. Fox, Esq., $—.

A pair of very superor *Oxen*, red, equal to any thing that can be produced of their size, for *service* and *gentleness*. Purchased by Richard Townley, Esq., $76.

A pair of first rate *Carriage-Horses*, greys; fit for any kind of service. Sold without a *known* fault.

It should be remarked, that where any of this stock is not of *full blood*, great care has been taken to select from the best native cows, especially such as were good *milkers*.

ART. CCCXXXVIII.—*Export of Live Stock from the Sciota Valley.*

The following article, taken from the Sciota Gazette, may serve to give our readers some idea of the increasing resources of the western portion of our extensive country.—*Ed.*

Below this article will be found a communication addressed to the editor of this paper, from one of the largest live stock dealers in the Sciota valley, or perhaps in the Western country, on the interesting subject of the live stock trade in this section of Ohio. Constituting as it does, the most important item in the annual exports of this valley; and embracing by far, much the largest amount of active capital employed here, we shall devote a few moments and a short space in this day's paper to its history.

Our correspondent, who was the individual who fed and drove the first fat bullock from this section of the west to an eastern market, informs us, that in the year 1804, there were but *sixty* head of fat cattle sent out of the Sciota valley over the mountains, and that this was done merely as an experiment to test the practicability of sending off our surplus corn in the shape of fat, or stall fed beef, to a foreign market. The experiment happily succeeded, and thus originated a traffic, which has swollen from *sixty head* to an annual export of nearly two hundred times that amount; and which now employs much the largest portion of both the active and fixed capital of this rich division of Ohio.

With a view to make this assertion apparent to the reader, we offer the following statement, furnished us by the gentleman already referred to, and which, if it vary from the facts as they absolutely exist, falls below instead of exceeding the correct amount.

CATTLE.

It is confidently believed that there will be fed in the Sciota valley the ensuing winter, 10,000 head of cattle which will be driven to an eastern market—exclusive of 2000 head, intended for home consumption—estimating these 10,000 head here at $30 per head, they will amount to $300,000

35,000 head of stock cattle, which will also be sent eastward, estimated at $15 per head, 525,000

825,000

HOGS.

60,000 barrels pork, estimated here at $10 per barrel, 600,000

25,000 head of stock hogs, at $3½ per head 87,500

687,500

Making the estimate export of cattle and hogs for the year ending with the ensuing spring, $1,512,500

This, the reader will bear in mind, is the amount of the beef and pork which will be sent from the Sciota valley the present year; and to which should be added $25,000 worth of horses, besides other descriptions of live stock—making a total annual export of $1,537,500!

To afford our distant friends some idea of the rapid progressive increase of the Feeding business in this valley, we will state the following facts. In 1804, there were only sixty head of cattle stall-fed for a foreign market, in all this extensive district of country. From that period until the year 1810, we have no accurate account of the number which were annually fed here. In that year we learn there were fed about 700 head; in 1815, 1500 head; in 1820, 2500 head; in 1825, 3500 head; in 1828, 6000 head; in 1830, 7000 head, and in 1831, there will be fed 12,000 head. With this astonishing increase of the number of cattle, the number of hogs have maintained their just proportion, and have contributed very largely to swell the yearly income of this valley.

If, to these estimated exports there be added the bread stuffs and other miscellaneous articles sent to foreign markets, from this valley, we have no hesitation in setting down their total amount, for the present year, at a sum not less than *two millions of dollars!*—This great income belongs to a limited and defined district of the state, and in the production of its agricultural labor alone. Nearly the whole extent of this fertile district will be traversed by the Ohio Canal, which has been but recently, in part, finished for navigation, and which will throw open a hundred new sources of wealth to the industry and enterprise of its persevering citizens. That each of those advantages will, in time, be improved to its greatest extent, and be made to add the full amount of its profit to the general income of the country, there cannot be a doubt—and thus continue to add to the comfort and convenience of those, who may be blest with their enjoyment.

The wealth of every country is measurably controlled by its industry; and where there is neither limit nor restriction affixed to the one, there can be no binding restraint imposed upon the progressive increase of the other. This valley now holds out every human motive for the active industry and spirited enterprise of its inhabitants. That they will be brought into life we have the strongest assurance from what has already

occurred here; and that they will yield to those who call them into action a full and ample reward, we have the pledges of a rich and fertile soil—a mild and genial climate—the advantages of a favorable local position—the blessings resulting from a free government—as well as the general promise, made by Providence to the faithful laborer—that his "bread shall be given him and his water shall be sure."

ART. CCCXXXIX.—*Miscellaneous, Original, and Selected.*

Bots in Horses—New Theory.—Dr. R. R. Harden has writen, in the American Farmer, an interesting article on this subject. From his experience, observation and experiments, he is fully of the opinion that the bots never kill horses—never begin to injure their intestines until the death of the horse takes place—and then merely to escape from a situation unnatural to them. He considers cholic to be the cause of sudden death. To prove that it is improbable that any substance put into the horse's stomach will kill the bots, Dr. H. caused them to be put in strong preparations of arsenic, corrrosive sublimate, &c., without materially affecting them.

When taken with the cholic, Dr. H. recommends to give the horse an ounce of laudanum as soon as taken, to bleed him until he falls, and while down to give two quarts of castor oil, and rub his flanks hard and continually.

Oil from Corn.— Our neighbour, (Mr. Curtis) who owns the distillery at Nail Creek, in this village, in the process of distilation from corn, perceived an oil which rose upon the surface of the liquor. He took pains to collect it and make a trial of its properties. It has been determined by repeated experiments by various persons, that the oil answers as well for burning as the best spermaceti oil. It is equally pure and as free from any offensive smell, and will burn as long. Further experiments are making of its use in painting, and it is alleged (although a fair trial has not yet been made) that it answers all the purposes of linseed oil. Mr Curtis procures a little less than a quart from a bushel of corn, and from 9 to 12 gallons per day, from the quantity of corn he works up. The oil is worth one dollar a gallon.— *Utica Intelligencer.*

We have had in our possession near two years, a vial of oil from corn, obtained by a person in Michigan, who, we believe, took out a patent for the process.—*Ed. N. Y. Farmer.*

New Haven against New England for Sweet Potatoes.— Mr. Henry Daggett of this city, has this season raised from one quarter of an acre of ground sixty bushels of sweet potatoes. We challenge New England, but we say in addition, let it be beaten in Carolina; yea, in the West Indies, if it can. There are in this lot, the largest and handsomest potatoes that we ever saw, and we have been where they grow wild. There is one of the round kind that measures nineteen inches in circumference, and weighs five pounds and one ounce. Others are eighteen inches, and two feet long. This is no fish story, though it is a large one. Mr. Daggett deserves a premium from every agricultural and horticultural society in the country.—*New Haven Republican.*

Live Oak Timber.—The Key West Gazette of the 9th inst. says: "The U. S. schooner Spark, Lt. Com. Piercy, lately arrived at this port has been on a cruise to the Main Land, and has discovered valuable tracts of land, containing live oak timber of large dimensions and superior quality, which were previously unknown to the Government of the United States."

Horticultural Ball.—The anniversary of the New-York Horticultural Society, was celebrated a few days since, by a ball got up with all splendor. The Charleston City Gazette, after noticing, in anticipation, the brilliancy of the illuminations, the elegance of the decorations, the quality and abundance of the refreshments, &c. asks:

But why a *Horticultural Ball?* Will the flowers dance to the inspiring music of the "Campbells are coming?" or will the cabbages melt into tenderness and tears at the pathetic melody of "O 'tis love, 'tis love." How romantic to behold a bed of Ruta Baga, going through all the variety of the Spanish Dance, with a string of lively Lettuces run to seed; or to see a huge Sunflower taken suddenly and violently with a fit of the Pendleton Reel, and rushing down the astonished walk, in all the "Poetry of *perpetual* motion." We shall have Horticultural Whist Parties next; and who knows but a Horticultural quilt-sitting may bring together all the old maids of the last half century?—*American Farmer.*

A Turtle Stranded in the Late Gale.—On Saturday 3d inst. a turtle of most uncommon size, weighing fourteen hundred and sixty pounds, was found high and dry on a piece of meadow land near Mr. Barreto's place on the East River, just above Hurl Gate. The turtle, which had doubtless been driven ashore during the late gale, has been brought to this city and sold to the proprietors of the American Museum for the sum of five hundred dollars.

Hogs in Ohio.—We begin to have numerous arrivals of these valuable quadrupeds at the slaughter houses of our city, and their appearance indicates that the corn crops throughout the country have been good; and that the farmers begin to be more sensible than formerly that the best way of disposing of it is to use it to increase the size of their hogs, so as to make them command the highest prices. Ours has for some years been the greatest pork market in the United States; but the pork packed here, has not yet acquired so high a reputation as it ought to attain. It is, however, improving in this respect, and it is probable that in a few years the term "Cincinnati," when used as adjective to pork, will be considered as equivalent to "the very first quality." It is supposed that the quantity to be put up here this season will be much greater than during any previous year. We hope the prices may be high as ever, and that those who have fed their corn to their hogs may find it a more profitable disposition of the article than it would have been to distil it into whiskey.—*Western Tiller.*

Price of Wood at Cincinnati, Nov. 26.—We have never known the price of fire wood so high at this season of the year as at present. It has for a long time been at $3 per cord, and during the present week, at $4, and we have been told that it has even been up to $6. At such rates we doubt whether any thing can be brought down the canal or the river that will be productive of as much nett profit as wood.—*Ib.*

Oak wood is selling in this city from 6 to 8 dollars per cord.—*Ed. N. Y. Far.*

Hints to Old Farmers.—In anticipating the hour when you shall leave this world, among your consolations, let this be one, that your farm is some 15, 30, or 100 per cent in a higher state of improvement than when you first took possession of it.

If you have a farm of more than 100 acres, give half of it to your son, rather than buy him another one.

Give each of your daughters, when young, some one portion of the domestic resources—the fowls, the silk worms, the gooseberries, the currants, or the plums. Their superior attention will multiply these resources, and enrich them, and not empoverish you. Let it be a condition that all they get is to be put out to interest; and then you will not leave them pennyless.

As a general rule, never lend money without bond and mortgage.—*Ed.*

Hints to Young Farmers.—In commencing your career, take the first steps with the utmost caution, for if you get embarrased in your first movements, it may cost you a whole life of labor and anxioty to resussitate your affairs. Aim at certainty rather than risk all with the hope of great gain.

Rather hire yourself out by the month and lay up your money, than take a farm without sufficient means to manage it to the best advantage.

In looking out for a wife, pay some attention to the constitutional ailments of the individual and of her parents. Some families are almost constantly afflicted with headache, earache, toothache, fever, cold, coughs, liver and pulmonary complaints, &c., &c. Health is very important to happiness.—*Ed.*

Hints to Farmers' Wives.—Accustom your children when young to rise early. Do not accustom them to eat between meals; and also impress them with the idea that it is wrong and hurtful to overload the stomach. If you allow them to cram themselves they will be subject to many ailments, and be gormandizers when grown.

Teach your daughters to set a table with taste, and allow them occasionally to preside that they may do it with ease and dignity.—*Ed.*

Hints to Farmers' Daughters.—Among the essential acquirments obtain a perfect knowledge of every department of household affairs. Improve your minds by that course of reading that will make you the most useful. In your collection of books let there be a treatise on botany.—*Ed.*

A Rail Road from New-York to Albany, through the western part of Connecticut and Massachusetts is contemplated. This will open great facilities for marketing the immense agricultural products of the eastern counties of this State.

Twin Heifers.—Mr. Morris, of Poughkeepsie, Dutchess Co. N Y. has a pair of handsome twin heifers 18 months old, so nearly marked alike, save one small white spot on one of them, that a great difficulty arises in distinguishing them, one from the other. Will these twin heifers breed? Will any reader of the New-York Farmer give an answer?

Naturalisation of Plants.—Since the discovery of the New World, our English gardens have received 2,345 varieties of trees and plants from America, and upwards of 1,700 from the Cape of Good Hope, in addition to many thousand which have been brought from China, the East Indies, New Holland, various parts of Africa, Asia, and Europe, until the list of plants now cultivated in this country exceeds 120,000 varieties.—*London Atlas.*

Prosperity of the Country.—Agriculture, the first and most important occupation of man, has compensated the labors of the husbandman with plentiful crops of all the varied products of our extensive country.—Manufactures have been established, in which the funds of the capitalist find a profitable investment, and which give employment and subsistence to a numerous and increasing body of industrious and dexterous mechanics. The laborer is rewarded by high wages, in the construction of works of internal improvement, which are extending with unprecedented rapidity. Science is steadily penetrating the recesses of nature and disclosing her secrets, while the ingenuity of free minds is subjecting the elements to the power of man, and making each new conquest auxiliary to his comfort. By our mails, whose speed is regularly increased, and whose routes are every year extended, the communication of public intelligence and private business are rendered frequent and safe—the intercourse between distant cities, which it formerly required weeks to accomplish, is now effected in a few days; and in the construction of rail roads, and the application of steam power, we have a reasonable prospect that the extreme parts of our country will be so much approximated, and those most isolated by the obstacles of nature, rendered so accessible as to remove an apprehension sometimes entertained, that the great extent of the Union would endanger its permanent existence.—*President Jackson's Message, Dec.* 1831.

Gooseberries and Currants.—Seeing a piece in your paper taken from the American Farmer, on the cultivation of gooseberries, I was led to conclude, that the author (although he has written well on the snbject) may lack information, in relation to raising this useful shrub. At any rate it may be useful information to add the following:—When you place your scions of either gooseberries or currants in the ground, cut off all the buds which go below the surface, and they will never sprout, and may be formed into handsome trees.—*Western Tiller.*

Corn in the Sciota Valley. From the best information, we can state that the corn crop in the Sciota valley was never, in any former year, so abundant, or so luxuriant. This great valley, from its opening at Portsmouth, to its termination at the head of the river from which it derives its name, presents, comparatively, but one continuous corn-field, loading and covering nearly its entire open surface with this valuable staple of our country.—*ib.*

Wines.—The English pride themselves in their nicety in wines—yet there is no nation in the world more perpetually duped in this point. "Give me," said a French merchant, "six hours notice of what wine you like, and you shall have it out of those twe barrels." There are forty thousand pipes of Madeira sold annually in Europe, while the island produces about ten thousand! There are thirty thousand casks of Frontignac sent every year from the French cellars, while the vineyards of Frontignac produce, in the best seasons, two thousand! Constantia is to be found in the hands of every dealer in Europe, yet it is produced in but one vineyard, and the vineyard produces but an few pipes.

[For the New-York Farmer.]

ART. CCCXL.—*Pomological.*

I have been highly gratified with the perusal of a new work descriptive of fruits, &c. from the London press, by George Lindley, and edited by John Lindley, entitled "*A Guide to the Orchard and Kitchen Garden; or, an account of the most valuable Fruits and Vegetables cultivated in Great Britain,*" &c.—The writer is one of the most experienced and intelligent professional gardeners in England; and the Editor, his son, is under secretary of the London Horticultural Society, and lecturer in botany in the London University. From the character, and opportunities of these Gentlemen for obtaining accurate knowledge, we had a right to expect from their joint labors, what this volume purports to give, and what it does give, so far as I can judge from a hasty examination, to wit: a description of the best Orchard and Garden fruit, with the names and synonyms of the varieties, adapted to the understanding of common readers. Of the 1300 varieties of the apple, and 800 of the pear, introduced into the London Horticultural garden, the work describes 214 of the former, and 162 of the latter, 60 plums, 14 apricots, 28 cherries, 62 grapes, 60 peaches, 28 nectarines, and the most select kinds of almonds, currants, gooseberries, quinces, raspberries, strawberries, and nuts. The fruits are generally divided into classes; the size, shape, eye, stem, skin, flesh, juice, stone, bunches, berries, time of ripening and duration of the fruits minutely noted;—as also the quality of the varieties for fruiting, and the specific gravity of the must of the cider fruits. It contains, besides, concise directions for propogating, pruning and training, a list of select fruits for a small garden, and a kalendar of work for the orchard and kitchen garden.

The confusion in the names of fruits is so great, that with every possible precaution on the part of the nurserymen, the same fruit is often cultivated under different names; and unless they fruit the various kinds, which seldom, very seldom happens, the evil spreads wide, and is perpetuated for years. The London Horticultural garden affords probably the greatest advantages of any one place in the world of detecting synonyms, and fixing a correct nomenclature of fruits. That garden embraces the fruits of every country in a bearing state; and there they can not only be compared and identified, but their relative merits pretty accurately settled. The Editor must have availed himself of these advantages, and it is hoped that amateurs, as well as the *trade*, will profit from his experience and accuracy.

The introduction evinces correct physiological knowledge. This is blended, as it always should be, with practical observations. They mutually aid each other. As an illustration of this remark, as well as for its intrinsic merits, I give the following quotation.

"*Transplanting* is, perhaps, that operation in which the greatest difficulty is found to exist, and in which the causes of success or failure are often the least understood. Volumes have been written upon the subject, and the whole range of vegetable physiology has been called in aid of the explanation of the theory; yet I am much mistaken if it cannot be proved to depend upon the two following circumstances: 1. *The preservation of the spongioles of the roots; and*, 2. *The prevention of excessive evaporation.*"

"It is well known that plants feed upon fluid contained in the soil, and that their roots are the mouths through which the food is conveyed into their body. But the absorption of fluid does not take place either by all the surface of their roots, nor even of their fibres, but only by the extremities of the latter, consisting of bundles of vessels surrounded by cellular tissue, in a very lax, spongy state, whence those extremities are called spongioles. That it is only through the spongioles that absorption to any amount takes place, is easily shown by growing a plant in water, and alternately preventing the action of the spongioles, when languor and a cessation of vital action comes on, and preventing the action of the general surface of the roots, leaving the spongioles at liberty, when the vital energies are immediately renewed. The spongioles are extremely delicate in their organization, and a very slight degree of violence destroys them. It is scarcely possible to remove the earth from the roots without injuring them in some degree, and if transplantation is effected violently or carelessly, they are in a great measure destroyed. *In proportion to the size or age of a tree, is the difficulty of preserving them increased;* and hence at the same time the difficulty of transplantation is augmented. If by any method, the spongioles could be preserved unharmed, there would be no reason whatever why the largest forest tree should not be removed as easily as the young plants in a nursery; but their preservation in such cases is impossible, and therefore the transplantation of trees of great magnitude cannot be effected. It is because of the security of the spongioles from injury when the earth is undisturbed, that plants reared in pots are transplanted with so much more success than if taken immediately from the soil. Hence, also, when earth is frozen in a huge ball around the roots of a plant, transplantation is effected with the same kind of certainty. The practice of cutting the roots of large trees the year previous to removing them, is attended with success for a similar reason. Whenever the roots are cut through, the new fibres which are emitted, provided the plant is in health, in short tufts, and each terminated by a spongiole, are much more easily taken out of the ground without injury than if they were larger and more scattered among the soil. When destroyed the spongioles are often speedily replaced, particularly in orchard trees, provided a slight degree of growth continues to be maintained. This is one of the reasons why trees removed in October succeed better than if transplanted at any other time. The growth of a tree at that season is not quite over; and the first impulse of nature, when the tree finds itself in a new situation, is to create new mouths by which to feed when the season for growing again returns.

"Evaporation takes place in plants to an inconceivable degree in certain circumstances. It is known by the experiments of Dr. Stales, that a sunflower plant will lose as much as 1 lb. 14 oz. by perspiration in 12 hours; and that in general" in equal surfaces and equal times, a man would perspire 1-50, a plant 1-165, or as 50 : 15; "and that taking all things into account, a sunflower perspires 17 times more than a man. The same most accurate observer found that a cabbage perspired in 12 hours 1 lb. 9 oz.; a paradise stock in a pot 11 oz., and a lemon plant 8 oz. Guettard states that he found Cornus mascula perspire twice its own weight in a day; and Mr. Knight has remarked a vine in a hot day losing moisture with such rapidity

that a glass placed under one of its leaves was speedily covered with dew, and in half an hour the perspiration was running off the glass. In damp or wet weather this evaporation is least; in hot, dry weather it is greatest. This loss has all to be supplied by the moisture introduced into the system by the spongioles; and hence, if the spongioles are destroyed and evaporation takes place before they can be replaced, a plant must necessarily die. This is the reason why deciduous trees cannot be transplanted when in leaf; it is impossible to remove them without injuring their spongioles, and it is equally impossible to hinder the evaporation by their leaves: but if they are kept in pots, it matters not at what season their removal takes place, because as their spongioles are then uninjured, even excessive evaporation would then be made good by their action. It is well known that certain evergreens, such as hollies, laurels, &c. can be transplanted in almost all months; this arises from the perspiration being much less copious than in deciduous trees, wherefore the spongioles have less difficulty in supplying the loss, occasioned by it; yet even evergreens cannot be removed in the hottest months of the year, because then the action of such spongioles as may be saved in the operation would not be sufficient to supply the waste by evaporation. Plants first beginning to grow in the spring, with their leaves just turning green, are in a most unfit state to remove, for, when transplanted, their roots will not have time to form a sufficient number of new spongioles to supply the loss to which the rapid perspiration by the leaves at that season will give rise. It is upon this same principle, that if deciduous plants are taken from the ground in summer, they are placed in pots and put into a hot bed to recover, not for the sake of the heat, but because the atmosphere of a hot bed is so charged with humidity that perspiration cannot go on, so that the vital energies of the plant, instead of being wasted by evaporation, are directed to the formation of new mouths by which to feed."

I will close this communication by giving an example of Mr. Lindley's manner of describing fruit

"17. Black Tartarian. *Miller*, No. 8.
Black Circassian. *Hooker*. t. 31.
Fraser's Black Tartarian. *Forsyth*, Ed. 3. No. 15.
Ronald's large Black Heart. *Ib.* No. 14.
Black Russian, Fraser's Black Heart, Superb Circassian. } of some gardens according to the *Pom. Mag.*

"*Fruit* large, generally growing singly, heart shaped, with an uneven surface, and a shining purplish black color. *Stalk* one inch and a half or more, slender. *Flesh* purplish, juicy and rich. *Stone* middle sized, roundish ovate.

"Ripe end of July to the middle of August.

"This cherry is generally considered to have been brought in to this country, from Russia, by the late Mr. Fraser, in the autumn of 1796.

"It is a cherry of great excellence. The young shoots, in the nursery quarter, are the most erect of this class of cherries, with a white epidermis, short joints and plump eyes; readily recognized from every other kind."

"137. Passe-Colmar. *Pom. Mag.* t. 34 *Hort. Trans.* vol. V. p. 410.
Passe-Colmar, dit Precel. *Ib.*
Passe-Colmar Epineux. *Van Mons, art. Fruit.* p. 373.
Fondaute de Panisel. *Ib.*
Poire Precel. *Ib.* 374.
Colmar Epineux. *Hort. Soc. Cat.* No. 452.
Beurrè Colmar Gris, dit Precel. *Ib.* No. 454.
Chapuraris. *Ib.* No. 177.

"*Fruit* middle sized, obconical, flattened at the crown, about three inches and a half long, and three inches in diameter. *Eye* open, slightly sunk. *Stalk* one inch and a half long. *Skin* green, when ripe becoming yellowish, sprinkled with russet, and if well exposed having a considerable tinge of red; the surface is somewhat uneven, with some slight longitudinal furrows running from the stalk end. *Flesh* yellowish, melting, juicy, very rich, and most excellent.

"In perfection in December and January. A most abundant bearer. It was raised in Flanders by Counsellor Hardenpout, to whom, in conjunction with Dr. Van Mons, and some others of his countrymen, we are indebted for several very excellent varieties of the pear."

"116. Esopus Spitzenburgh. *Hor. Trans.* Vol. V. p. 401.

"*Fruit* large, oblong. *Stock* of moderate length, placed in a deep cavity, and projecting a little beyond the base. *Skin* smooth, of a lively brilliant red, approaching to scarlet, with numerous small yellow spots. *Flesh* yellow, very rich, juicy and brisk.—Ripe about Christmas.

"A most excellent apple of American origin; too tender to succeed in this country without the aid of a wall." &c.

Albany, Nov. 25, 1831.

[For the New-York Farmer.]

ART. CCCXLI.—*The Country Farmer.*—No. XIII.
On the choice of suitable Land for Farming.

MR. FLEET—The coldness, of some land, with excess of water, on which certain kinds of trees, adapted to such circumstances, will still grow to enormous stature, preserves their cast-off leaves from decay, the accumulation of which forms *black-muck*, that deceptive covering of the soil, already noticed: or rather of the surface, for such lands, on a close examination, hardly ever have any soil, strictly speaking, or only in patches, in a few places. The sub-soil, is almost invariably hard-pan, or clay, neither of which are penetrated by the roots of the trees, which run upon their surface, as they would upon that of a rock. It is a good plan, in selecting a lot of wild land for a future Farm, to examine the roots of such trees as have been blown down by the winds, with the ground adhering to their roots. On mucky lands, these will generally be found, on examining what was the under side, while standing, as *flat as a pan-cake*. See, also, if the roots of the standing trees, are afraid of the ground, extending off horizontally, or whether they stretch downward, deeply buried in the soil, as roots should be.

On warm lands, the dry gravel, the 4th quality, in new countries, and the 1st, in old, or on all warm and

dry soils, there is so much warmth, that the leaves are soon putrified, perfectly rotted, forming, at first, vegetable mold, then soil, or earth, with more or less of vegetable remains. Hence there can be no carpeting of muck, but a real soil, covering the sub-soil, occupying the surface. In walking over such ground, you never tread on the horizontally extended roots, for they lie deep, exactly the reverse of their position in mucky land; and the trees torn up by the roots, leave a deep pit underneath, from which the roots have brought up the *soil*, in this case. When such land is cleared of its trees, you may see the furrows close to the stumps, even so as to tear off the bark with the land side of the plough. It is always a very bad symptom, to find the roots naked, as if afraid of the ground, but this never happens on any but cold and wet land, except on solid rock. Young Farmers, themselves inexperienced, would do well to consider the roots, as giving sure indications of the qualities of the land, and that the trees, as to their size, and often as to their kinds, afford little by which to form a correct judgment. The groves of the sugar maple, beech, and hemlock, in the northern part of the United States, are, except on some sandy river alluvions, confined to cold and wet mucky lands; while on the Ohio, the beech and maple groves are often found on the very warmest soil, the roots all hidden, and deeply buried. Such is the case, also, with other kinds of trees, affecting widely different soils in different climates, and countries, in which the altitude has more concern than mere latitude. The white beech, of the north, is a very different tree, however, from the red beech of the Ohio valley, *that* always preferring a cold and wet location, and *this* generally a dry and warm one, where muck is rarely found.

Such, Mr. Editor, is a general outline of the result of my observation and experience, on the selection of suitable lands for Farming. By the time of the second generation, and often during the lives of the first settlers of regions of mucky lands, the whole order of valuation is reversed, as above described; and that which, at the first settlement of the country, was esteemed only as of the third or fourth quality of land, comes to be, by general consent, considered the very best, the first quality. If we now seek an explanation of this, the ready answer, is; warm and dry soils afford crops much more certainly, being less affected by extremes of all sorts, as of excess of rain, of drought, heat and cold; may be worked earlier in spring, and later in autumn; heave less, by winter freezing; and the crops are much less liable to injury by early and late frosts. Take the sum of all these into amount, and it amounts to a very great difference. But, besides all this, warm soils are sensitive to the kind treatment, to the care and skill of the Husbandman; and cold and wet ones, are not. Mother Earth, like all other Ladies, loves a little assiduity of attention, and rarely bestows her bounties without some coaxing. *Warm soils* invite this, but *cold ground* repels all such advances. Hence it is, that, as men, Husbandmen, love to be in this humor of coaxing, so a warm soil, by inviting it, makes good Husbandry, and is the better taken care of, when made fertile, for having been, in good part, made so, by the assiduity of the cultivator. They who reside on land of the greatest natural richness, even if fertile, or not, rarely use much of this kind of assiduity, rarely are good Farmers, or grow fat by Farming, fat as Farmers, that is, rich in purse, and in mind. Men of this cast, who increase in substance by Farming, and live as Farmers should, are found on this 4th quality of land, now become the first, in all parts of the northern and western states, whatever may be the case with the regions of cotton, rice, and the sugar cane.

The richest Farmers, then, are not on the poorest land, but on such as, in all newly settled countries, had been thought such. Farming wealth, has thus been made to change hands; and the industrious, hard laboring, and economical Husbandman, has succeeded to the enjoyment of what was anticipated, and meant to be secured, to those who had secured the first choice. They called it the 'cream of the country,' but it has turned out sour milk, or even loppered buttermilk. Travel wherever we may, among the Farmers of the Northern and Western states, or in the Canadas, through settlements of 30, 40, 50, to 100 or more years old; from Canada to N. Carolina, along the Atlantic, or the regions of the great Lakes, or through the Ohio Valley, embracing its thousand tributaries, and the truth of these remarks will be confirmed at every step. If such be the case, the vast importance of the subject, proportioned, to the extent of the field, and to the number of persons interested, may well excuse a rather prolonged discussion. It is often a hard matter to correct a single error, or to remedy a single fault, of judgment, or action; and I hazard nothing in saying, that, thousands of actual Farmers, men of good standing for sense, too, will be ready to acknowledge their obligations to these summary remarks. I have known Farmers, and know such, now, who have fallen into the very common delusion as to black muck lands, and have paid dearly for it, to whom this advice, seasonably given, would have saved many years of regret.

The County of Dutchess, N. Y., now actually one of the most productive in the State, was almost all of this undervalued kind of land, having but very little of the carpeted sort, covered with muck, or of fat clay, or recent river alluvion. What there was, was soon seized, as the cream of the whole, leaving the dry ridges to the slow coming 'Interlopers,' who have long since enjoyed the cream, leaving the sour milk to their lopper-loving neighbors. The eastern part of Columbia county, also, timbered with oak and chesnut, among which muck rarely is found, consisting of dry 'ridges and barren vales,' as they were then thought, was like the lands of Dutchess, regarded in the same light.—Some 70 years ago, those lands were '*taken up*,' as it was called, on paying a trifling fee of office, and a title was soon acquired, of possession, by occupancy as a Farm, and a mockery of a brush-fence inclosure.—Farms, thus acquired, are yet in possession of the families of the first occupants, and good Farms, with good titles. Yet all these inducements could not keep the Salisbury men, Yankees, just over the line of '*York State*,' from participating in the rage for carpeted lands, the beech and maple and basswood and ash and elm groves of the '*New State*,' as Vermont was called.—They sold their Farms, in Salisbury and laid out the avails in the mucky wilds of Vermont, much to their subsequent loss, mortification, and regret.

My Father, one of those, with several brothers, who had been bred to Farming, on *hard land*, sold the old Farm, a very large and good one, to become Farmers on *soft land*, most abundantly carpeted, 'over shoe' in black muck. When first cleared, it produced great crops of grain, or, rather, a great crop,—for it very

soon began to wear out, though managed by good Husbandry; and in 10, 15, to 20 and 30 years, would produce nothing but grass, coarse, wet-land sedge, or wild grass, because the turf could never be so subdued as to make it take seeding. As to grain, for bread for the family, that we had to purchase from others, after a few years, raised on lands more recently cleared, as the occupants of those lands have had to do, in their turn. Grass, grass, all grass, and yet poor feed, as pasture, or hay. Land that will produce but one kind of product, makes hard living for Farmers, like the shingles of Sacandaga. The only resource of the occupants of those lands, now, (who cannot get away,) is the dairy and the raising of young cattle, for the Farmers of Dutchess, Columbia and Westchester, living on lands that were never carpeted. Land, moderately moist, and cool, will answer well for dairy and stock-farming, but wet, and cold land, contrasted with warm and dry, as above, makes tough, cold, and sour pasture, or hay, miserable feed, long and sour, like a tedious and ill told story.

Sept. 17, 1831.

It will be recollected by most of our readers that Messrs. W. Wilson and T. Hogg interchanged a few thoughts, in the New-York Farmer, on the climate and productions of this country and England—and that they referred the settlement of the controversy to Mr. Buel and to Mr. Loudon. The statement of Mr. Buel is in Vol. 2, page 49, that of Messrs. Wilson and Loudon, in Vol. 2, page 219. In justice to Mr. Hogg we insert his. It did not appear in Loudon's Magazine until the publication of the June number, 1831. Mr. L's correspondents furnish him matter sufficient for a supply of two or three years—affording him great facilities for selections appropriate to seasons and times. —*Ed. N. Y. Farmer.*

ART. CCCXLII.—*Notice of the Culture of Thirteen Kinds of superior Horticultural Productions in the Neighborhood of New-York.* By Mr. THOMAS HOGG, F. H. S., Nurseryman there.

SIR—My neighbor Mr. Wilson has, in a former number of your Magazine (Vol. V. p. 409.,) enumerated certain garden products which are brought to perfection in the open air in America, but which require protection in England. With your permission I will state to you the cultivation and the result of these thirteen kinds of horticultural products in this country.

The European sorts of the *Grape* grown here for wine or table use have not succeeded in any part of this country in the open fields, arranged as vineyards, though the experiment has frequently been made by French, Swiss, and German settlers. The mildew has baffled all their efforts. This disease affects not only the young wood, but also the fruit, and totally destroys both for the season. In cities, however, the vine succeeds much better, not being much affected by the mildew; and I am informed that farther to the north of us, for instance, at Albany and Boston, they succeed better than they do here, that is to say, they occasionally produce fine crops of grapes. Protection, however, in winter, is necessary every where; for such is the severity of that season here, that, if kept exposed, the vines are frequently killed down to the ground. Our mode of protection is to bury the wood under the soil. From the aboves tatement of facts, you will perceive that artificial aid is more necessary to bring the grape to perfection in America than in England.

The Peach in general does well in the middle States; but is often killed by cold in the eastern States, and to the north of us. We cultivate the trees as standards. Their roots are much infested by a grub called the worm, which if not carefully looked after and destroyed, will very soon destroy the trees; it is therefore with a great deal of care and expense that we at all succeed, nor is it uncommon to have all our expectations of a crop blasted by our late spring frosts. This season they have been unusually abundant and cheap.

Nectarines are almost a hopeless crop with us; the skin being smooth, it is attacked by some kind of insect, by which it is destroyed before it comes to maturity. In some of the small gardens in town we occasionally have a few fine nectarines, but they are always considered a fruit of great rarity.

Cucumbers. To have them in the early part of the season requires as much artificial aid as it does in England. The short prickly kind is the sort generally cultivated here, and they succeed best in light sandy soils. We sow them in May in the open ground; and about the latter end of July, and in August, we have great abundance, cheap, if the season is favorable: for it sometimes happens here, as in England, that some seasons are more favorable for them than others. In England the plants or vines continue to bear fruit for a much greater length of time than what they do here; the plants likewise, when young, are very much infested by some insect, which often destroys them.

Melons. To have them early requires the aid of hot-beds, in the same way as for raising them. The seasons here are frequently unfavorable for them.—When planted in the open ground they are frequently killed by heavy rains, particularly after dry weather: they do best in hot dry seasons and on sandy soils.—In favorable seasons they are very abundant and cheap. If the old fashioned mode in England of raising cucumbers in ridges were adopted for melons here, it would, I think, well pay for the trouble.

Pumpkins, Vegetable Marrow, and *Squash* are generally raised in this country for family use, and for feeding cattle in winter, in lieu of turnips; they are cultivated, as in England, without artificial heat.

Indian Corn succeeds well here, and is grown in lieu of field peas and horse beans. Mr. Cobbett, I understand, asserts it is far superior. To that gentleman I refer Mr. Wilson for information respecting its cultivation in England, without artificial aid.

Lima Beans [Dolichos sp. ?] do well here. For an autumn crop we plant them out in the open ground, about the second week in May. A little artificial heat would be a benefit to them: they are frequently killed, if planted out too soon, by wet or cold weather.—They are used in the same way as Windsor beans; some say they are better, but some say nay.

Pepper, or *Capsicum*, and *Tomato*, or *Love Apple*, are generally raised in hot-beds (by our best gardeners,) and then planted out in the open ground as in England.

Okra (Hibiscus esculentus) is mostly used here, by the French in soups. It is sown about the middle of May in the open ground, and frequently raised early in the season in hot-beds, in the same way as the preceding.

Having thus gone through Mr. Wilson's select list

of what he considers superior garden products, you will judge for yourself as to the correctness of his statements. To me it appears that he has been very unfortunate in his selection; for the greater part of them are cultivated here precisely in the same way as they are in England.

Much more might be said on the garden products and climate of this country, if my time would permit. I cannot, however refrain from making a few observations respecting the cauliflower, broccoli, and gooseberry.

The *Cauliflower* is seldom attempted to be cultivated here by our market-gardeners: the extra-trouble and the precariousness of our seasons prevent them; for, if the hot weather sets in early, they never come to perfection. In private families, however (upon a small scale,) by very great attention and care, a crop is usually obtained; but in our markets they are always a rare vegetable.

Of *Broccoli*, the only kind raised here is the Cape. We cultivate it precisely in the same way as you do in England, and it succeeds well; but the other kinds will not stand our winters without shelter; no, not even the Scotch kail.

Gooseberries, like the grape, are subject to mildew. They are seldom sold in our markets in a ripe state; if left on the bushes to ripen, they are generally burnt or scalded by the sun, and afterwards drop off.

The point in dispute between Mr. Wilson and myself is simply this: he has asserted that this climate is superior to England for the production of fruits and garden products; and as a proof of this assertion, he has given us a list of thirteen kinds of fruits and vegetables said by him to require artificial aid in England, but not so in this country. The question, therefore, to be decided is, whether the success of these thirteen kinds of vegetables in this country is a sufficient proof of its superiority of climate. The next point of dispute is, whether Mr. Wilson is correct in stating that all these thirteen kinds require artificial aid in England, but do not require such in this country.

I differ from you in opinion, when you assert that "more may be done in the open air in America, in the cultivation of culinary fruits and vegetables, than in England; and as much by protection, by forcing, and by artificial climates." My opinion is, that more culinary fruits and vegetables are brought to perfection in the open air of England than here, and that less can be done here by forcing and by artificial climates than in that country. What are the culinary fruits and vegetables that grow in this part of America that do not grow in England? I remain, Sir, &c.

THOMAS HOGG.

New-York, Nov. 16, 1829.

ART. CCCXLIII.—*Hints on the Formation and Management of Agricultural Societies, in the State of New-York.* By the EDITOR.

We intended to continue our remarks on the importance and expediency of agricultural associations—but as the day for a convention is fixed, we shall throw out some occasional hints on the duties incumbent on their management.

The success and utility of voluntary associations depend on views of duties, entertained by those who accept of offices. From the nature of the association —being voluntary—the obligations to discharge the duties are considered light—not amenable to any one. Hence the occasion of being elected officers is too often regarded by the occupants as a compliment to their general worth, rather than as resulting from an expectation and a tacit understanding, of zeal, activity and untiring exertion to raise the character and accomplish the objects of the society. Those who thus estimate the honor conferred by their fellow citizens, have very inadequate views of the obligations imposed by such a favorable expression of opinion. These are the persons, under whose superintendence and guardianship our praiseworthy and patriotic associations languish and die. Such men palsy the very sinews, and infuse a narcotic into the whole system, of society. Far and wide they spread their 'malign influence'—to the whole land, for the present and many succeeding generations, they proclaim the futility of voluntary associations. Put these same persons in offices of trust where their performances are estimated and requited by dollars, and they make vigilant and worthy servants of the public. All this bespeaks insensibility and a low tone of patriotic feeling.

On accepting an office no one should presume that his name and influence, however great they may be, will answer as a substitute for enterprise and exertion. Let his acceptance be an acknowledgment of his obligations to devise plans to arouse his countrymen, and to call into exercise their energies. And when he has reached the acme of his fame and usefulness, and set an example worthy of imitation, let him retire and receive his reward—the thanks and approbation of his neighbors and fellow citizens.

[For the New-York Farmer.]

ART. CCCXLIV.—*Corn in England.—To William Cobbett, Esq. of Kensington, Old England.*

DEAR SIR—I have noticed your address "To all the Yankees upon the face of the earth"—and am much pleased with the friendly agricultural contest, which you propose between the farmers of this country and yours. In the battle field I hope our citizens may never again be obliged to contend, but in the harvest field, I am quite willing there should be a perpetual strife.

That England is indeed a fine country, (if not the finest in the world,) I have no hesitation to admit, but that it can produce in perfection, every plant which all-bounteous nature has given to her children in every clime, I have yet to learn. Wheat, barley, and oats, three of the choicest gifts from Heaven to man, may, without doubt, grow abundantly in England, but Indian corn, (Zea mays) I have always thought we could raise in larger quantities, and of a better quality, than even that favored Isle. This is the point in issue, and I am glad you propose a method of deciding the important question, and will cheerfully enter the list, if my location does not exclude me. I am a Yankee; my farm is situated upon the bank of the South Chuctanunda, which you will see by the map of New-York empties into the Mohawk 16 miles above the city of Schenectady. With your permission then, I take up the gauntlet—it being distinctly understood, that no part of the grain, grown by either of us, shall be weighed or esti-

mated, unless it is perfectly sound and fully ripe.

I am perfectly serious in accepting this challenge and have not the smallest doubt but we may agree upon the umpire to decide between us, if those gentlemen you have named, should decline the task.

I am with sincere respect, yours, &c.

S. Reynolds.

Florida, N. Y. Nov. 25th, 1831.

Remarks:—We give the above an insertion, not presuming however, that Mr. Cobbett will accept it, on the ground of location. Dr. Reynolds is abundantly responsible for the amount.

Mr. Wm. Wilson of this city has published a communication in the Evening Post, the purport of which is, that Mr. Cobbett's corn is comparatively valueless, and that it is beneath the dignity of a Yankee to bring our superior varieties in competition with it. We have received a satirical article, conveying the idea that this noise about corn in England is one of the many manœuvres of Mr. C. to sustain his notoriety, and to pocket a little cash for his seed corn. In the former communication Mr. W. quotes the following from Loudon's Magazine, Vol. VI. page 63.—*Ed.*

"No. 1. Sweet corn—useless to attempt growing.

2. Maize quarantaini (ripening in forty days)—may succeed in fine weather.

3. Early golden corn—may also do well in warm summers.

4. Large yellow corn from Pennsylvania—useless.

5. Large red—the same.

6. Large yellow flint—the same.

7. Large white flint—the same.

8. Pearl corn—only now (Oct. 31,) in bloom.

9. Egyptian, or chicken corn—very early, but small.

10. Cobbett's early—equally good, but not quite so early."

'Now as Mr. Cobbett says, his challenge is given to show the Yankees, that he can grow as good corn as they can, it would be but justice in Mr. Woodward, who has put the challenge in the public papers, to inform those challenged, through the same medium, which of the best sorts he pretends to compete with.

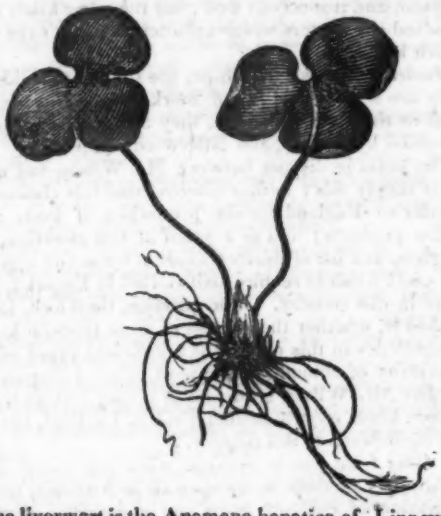
'Nos. 1, 4, 5, 6 and 7, are the kinds generally cultivated by the Yankees. It would certainly be beneath the dignity of such champions to select any inferior variety. Neither would it be very honorable for one party to cultivate one kind of corn, and the other party another kind.

'The author above quoted, in speaking of Nos. 1, 2, 8, 9, 10, says, "Here I may beg leave to correct an error of opinion which has prevailed among many since the introduction of it, as to its application in America, which is no less gross than to suppose it is the corn which yielded the fine flour of that country," viz. Nos. 4, 5, 6 and 7.'

Art. CCCXLV.—*Liverwort—(Anemone Hepatica.)*

As many persons may feel interested to know something more of this newly discovered medicine for consumption, an engraving of which is here given, a medical gentleman has furnished the following botanical description. The cut is about one third the size of the plant, and is sufficiently accurate, to enable any person to recognize it at first sight. Its leaves will be perceived to be three-lobed, entire, in shape resembling the human liver. It continues green through the winter, and the leaf is preferable to the root for use.—The *leaves* and not the root are to be used.

"It is a circumstance not a little perplexing to students," says Mr. Bigelow in his Florula Bostoniensis, "that the first plant in a genus without a calyx should have a calyx of three leaves. Linnæus, in associating this plant with the Anemones, considered the calyx from its remoteness to be an involucrum, and not a perianth. Leaves radical, on hairy petioles, with three broad oval lobes. Peduncles and involucre hairy.—Petals blue [6 v.] This elegant plant is one of the earliest visiters in spring, flowering in sunny spots before the snow has left the ground." It is perennial, and grows in the woods, and most abundantly on the north side of hills. It may be found in almost every part of America, and although it flowers in April according to the books, yet it may be gathered in February.



The liverwort is the Anemone hepatica of Linnæus, belonging to his 13th class, Polyandria; and included in the seventh order of this class, Polygynia. It is also called by botanists Herba trinitata, Jercorasia and Mechantia polymorpha. It is nearly allied to the Lichen Islandicus, or Iceland moss, but it has been long esteemed superior to it as an aperient, resolvent, and anti-scorbutic. It has a penetrating though mild pungency and bitter taste, sinking as it were into the tongue. It is known to possess mildly astringent and corroborant virtues, and has been given both in the form of dried leaves in powder to the dose of half a tea spoonful occasionally, and in the form of tea prepared in the preportion of a handful of the leaves to a quart of boiling water. When the water is poured on at a boiling temperature, it ought to boil twenty or twenty-five minutes only in a covered vessel. This is to be drank when cold, it being then of the color of Madeira wine, which is an evidence of its being of proper strength. It may be used as a common drink to the exclusion of either tea or coffee, and accompanied by a diet of milk and vegetables.

So much noise has recently been made unjustly about the Skull Cap, Pippisseway and Iceland moss, that it is not wonderful that people should be incredulous with

respect to any of the newspaper eulogies bestowed upon these and other remedies, particularly when announced as specifics for "incurable diseases." From some experiments, however, the writer has recently made with the Liverwort, he is of opinion that it possesses decidedly curative virtues, in at least two of the species of the consumption; the Phthisis Hœmoptorica, or bleeding from the lungs.

Dr. Hereford has lately published an additional note on the subject of the liverwort. He advises that during the trial of this tea the patient should abstain from use of all other medicine; but the leaves and stalks only should be employed in the decoction; that the roots are nauseating, and otherwise ill adapted to the cure of the disease for which the plant is recommended; and that many persons cook the plant too much, a simple infusion only of heated water being necessary. —*Monthly Repository.*

ART. CCCXLVI.—*Kiln Dried Corn Meal.*

Kiln dried meal must be made of the best *yellow* corn; white would not sell. Hogsheads should be made of the best seasoned white oak stuff, 2 feet 5½ inches long, and be 2 feet 3½ inches across the head.—Four iron hoops on each hhd. The rest of the hoops, strong, smooth hickory. The hhds. must be made tight, as they are sold for rum hhds. in the W. Indies —the only market for them.

The corn is dried in a long sheet iron cylinder, or in pans (put in motion by the mill) in a heated air-chamber of brick. The meal is sifted; the cloth as open as the common middlings cloth in a sup. reel, and about 4 feet long.

The weight in each hhd. 800lbs. and the hhd. must be branded with the name of the maker and *kiln dried corn meal No.* 1, 800*lbs.* The meal must be of a bright yellow, and smell strongly of the kiln, or it will not pass inspection. Ten hhds. per day is moderate work for a good pair of burrs and a good kiln; sixteen bushels of good corn will make a hhd.—old corn less. Ten to 12,000 hhds. are in New-York yearly for the West Indies.

It would not be safe for a new hand to construct a kiln, without the presence of an experienced workman who has put them up. The sheet iron pans are better than the cylinders.

The price in New-York varies from $13 to $15 through the year, when corn is plenty. The cost of a complete kiln with pans, is $400 to $500.

The vegetating principle must be entirely destroyed, and the point of sufficient dryness can be easily ascertained by the smell of the meal while grinding. Great pains must be taken in making the hhds. *well*, and of stuff long seasoned; or the meal will make them shrink so much that they will fall to pieces before they reach the market.—*N. Y. Jour. of Commerce.*

ART. CCCXLVII.—*Miscellaneous, Original, and Selected.*

Hail Storm.—The weather during July has been remarkably warm, with frequent showers; and on the whole the agricultural crops and woods never looked better. The crops of fruit, however, are generally defective, though we believe they are better in the neighborhood of Manchester and Chester than they are either farther north or farther south. On the 15th of July a dreadful hail storm happened at Penruddock, about six miles from Penrith, on the road between that town and Keswick. It extended over a tract of country nearly two miles in diameter, totally destroying the field crops, and killing many of the birds, hares, rabbits and poultry. The hares took shelter in the same shed with men and cattle. The leaves of the large Tussilago, by the roadside, and those of all the crops in the cottage gardens were cut into shreds; the potato leaves and stems were lacerated, and every stalk of corn was broken. Two extensive farmers lost every thing but their cattle. The storm began in darkness, about four o'clock in the afternoon, and continued nearly two hours; the hailstones which fell were from 4 to 6 inches round; they formed a body in many places from 15 to 18 inches deep; and lay on the ground three days before they were all melted.—*Loudon's Mag. for Oct.* 1831.

Saving Peas or Beans from Mice.—Chop up the tops of the last year's shoots of furze, and sow them in the drills.—*Ib.*

Cheap Method of catching Mice.—Sink bell glasses level with the earth; fill them half full of water; put a little oat-meal over the water in the glass, and a little over the earth about the outside of the glass, "to decoy them to a watery grave." Cover the glasses with straw during winter, to keep the water from freezing.—*Ib.*

Immense number of Mice.—In a forest planted by Lord Glenbervie, the mice, threatened its entire destruction. The following is an extract from the Horticultural Register for August 1831.—*Ed.*

"In short, holes about two feet long and ten inches broad at top, and somewhat larger every way at the bottom, were made at twenty yards apart, over about 3200 acres of plantation; persons went round early in the morning, to destroy such mice as might be found in the holes. 'In this way, besides what the owls, hawks, magpies, and weasels took out of the holes (and several of these depredators lost their lives in attempting to seize their prey,) 30,000 mice were paid for by government; nor were they extirpated until they had destroyed, in four inclosures, amounting only to 1700 acres, the astonishing number of 200,000 five year old oaks, together with an immense number of acorns and young seedlings.'

"It is said by naturalists," observes Mr. Billington, 'that the beaver will fell trees with his teeth, but I have never seen an account of mice felling oak trees; yet I have seen many trees 7 or 8 ft. high, and an inch and a half in diameter, cut down by them. When examining for the thick part of the root, below where it was bitten off, I could never find any part of it left, so that it is very probable it was eaten by them. I have by me several trees so cut down, for the inspection of any person who may be desirous of witnessing, with his own eyes, the wonderful powers of so diminutive a creature as the mouse in felling trees."

Growth of the city of New-York.—From an article in the Evening Post, we make the following extract.

In 1820, the city of New-York (proper) occupied about a thousand acres of land—was bounded north

by Grand street, and contained (according to the census) 123,000 inhabitants—in 1830 it contained 210,000 inhabitants—had covered a *second* thousand acres, and was bounded by a line from River to River, of of which Sixth street is the centre. It hence appears that during the last ten years (during a part of which time there was but little activity in business) 1000 acres of vacant land, equivalent to about 12,000 lots, have been required for buildings and the accommodation of the 90,000 additional inhabitants. Now provided that the population of the city increases for the ensuing ten years, only at the same rate of 9000 per annum—and certainly the present prospects of trade and business induce the belief that a much greater increase might reasonably be expected. If the population should increase in the same proportion, to wit: as 210 to 123,000 or about 72 per cent, then in 1840 the population would be 360,000, for the usual accommodation of whom an additional 5000 lots would be necessary.

Indigo.—This plant is found in abundance on the pine lands in this territory. It grows very luxuriantly, frequently attaining the height of six or eight feet.—We have no data by which to estimate the comparative value of this plant as a crop, with the other staples of this country, except the amount of exports from the British colonies where it is cultivated. We have reason to believe, however, that it is not less profitable than sugar or cotton. The general impression, that its cultivation is productive of sickness, will prevent its becoming a staple to any extent in this country.

This objection, however, might be removed by the introduction of a practice which is said to prevail in some of the British plantations, where the indigo plant is cut at the proper season, and sent in bales to England, where there are extensive establishments for extracting the coloring matter. It is said that the process is conducted with more economy, and that indigo of a better quality is obtained than when it is necessarily extracted in a less skilful manner on the plantations.

We have conversed with several gentlemen who are anxious to try the experiment of cultivating indigo in this manner, provided they can obtain any information on the subject. The editor of the American Farmer has probably better means of obtaining the information desired than any other, and will confer a special favor on our citizens by ascertaining what would be the value in the northern cities, of a bale of the indigo plant properly cured, and weighing three hundred pounds.—*Floridian.*

Cowpeas.—A friend in Louisiana, in a letter to the Editor of the American Farmer, makes the following remarks relative to the cowpea, which we consider valuable:—

"I have lately noticed in the Farmer, some remarks on the cowpea, and as I have some experience in raising them, I will state the result of my observations.—The first time I ever planted them, except with corn, was on a peice of ground much worn and exhausted, off which I had just taken a crop of oats; about the first of June, then broke up the ground, ran furrows acoras the ploughing four feet apart, in which the peas were dropped and covered with a light plough, followed by one horse harrow, to remove the clods and pulverize the earth. When they were six or eight inches high, I had them ploughed and hoed, which was all the work they ever had. I planted six acres in this way, and in the fall when the pod and leaf began to turn yellow, I had two acres cut and cured for hay, which I think, produced two and a half to three tons per acre. I, at the same time, sowed half an acre (by way of experiment) broad cast, and harrowed them in, and the difference in the product was astonishing; I think four to one in favor of the part drilled and afterwards ploughed and hoed. I discovered, that both cattle and horses preferred the pea to the best timothy hay or corn blades, and have no doubt it affords an equal or greater degree of nourishment than either.—The cowpea will succeed well in all the middle and southern states, and on every description of soil. I have tried it, and I have for many years been greatly surprised, that more attention has not been paid to its cultivation, as I think it a most valuable crop for feeding stock or restoring worn out lands. It may be raised advantageously with corn, or drilled in the way I have described. I omitted to describe the manner I had the peas cut and cured. The hands took a common knife, followed the rows and cut the vines at the top of the earth, loosened them a little from the ground and turned them over; they were turned afterwards, pretty much as other hay is managed in curing. It requires much longer to cure than hay made of grass, and when put up must be secured under a shelter."

Second crop of Apples and third crop of Blossoms.—The Providence American mentions, a second crop of Apples and a third crop of Blossoms, taken from a pearmain Apple Tree in Cumberland, R. I. The tree after bearing and bringing to maturity one crop, blossomed the second time, during the second week in September, as full as trees generally do in the spring. Some of the apples, when the frost checked their growth measured above three inches in circumference, but they are generally of the size of full grown crab apples. What is still more remarkable is, that the tree blossomed for the *third time* about the second week in November.

Elasticity of Feathers.—The elasticity of feathers was well illustrated by an experiment lately performed in the library of the Royal Institution, London, of immersing feathers, rumpled and bent in almost every direction, in boiling water, and on withdrawing them they were seen to have resumed their regular and natural form. This was accidentally discovered by a specimen of a foreign bird, the plumage of which had been very much rumpled, falling into some hot water, which restored it; and the process appears to be one that may prove of much advantage to the preservers of those beautiful animals.

New-York Cattle Market, Bull's Head, Monday, Dec. 19.—Including 200 of last week, there were 700 head of Beef Cattle at Market; 500 were sold. Sales dull—prices from $4,50 to $6—averaging about $5,25. Three very fine oxen fatted by A. Aiken, of Dutchess County, sold for $9,50; and the same number, fatted by Ezra Barsley, Fairfield County, Ct., brought $7,50.

Cows—Milch Cows are scarce. They sell from 20 to 30 dollars.

Sheep, 30 in market, brought from $1,50 to $3,50 each. The best of wethers, weighing 20lbs. per qr. bring $6. ☞ For Hay and Wood, see Produce Market.

[For the New-York Farmer.]

ART. CCCXLVIII.—*The Country Farmer.*—No. XIV.—*On the choice of suitable Land for Farming.*

MR. FLEET—That a *warm* and *dry soil*, or but *moderately moist*, such as a *gravel*, or a *gravelly*, or *sandy loam*, or *mold*, resting on a sub-soil of much the same composition, but more compact and ponderous, properly a *medium soil*, suitable alike for grain and grass, is generally the best for Farming, is known to all men of extensive experience and observation. I hope I have succeeded in showing why it is so, and why lands, of an opposite character, are not, and to exhibit the true relative character and value of each kind. *Clay*, in due proportion, combined with gravel, constitutes a *gravelly loam*; in larger proportion, a *loamy gravel*. So also of *sand*, either a *sandy loam*, or a *loamy sand*. *Sand*, without some *clay*, is rarely found, as soil, and is of little value as such. In all cases, *clay*, in some proportion, is an essential constituent of every composition of earth for a productive soil.—If in excess, the land is cold, clammy, hard to work, hard to pulverize, and if very moist, or wet, necessarily barren, doomed to sterility, except by admixture of gravel, or sand, making an artificial soil, by the aid of quick-lime. What I call a *gravelly mold*, or a *sandy mold*, is a loam, of gravel, or sand, described above, which has in it a due proportion of vegetable remains, the warmest, and most productive, of all soils. In choosing a soil, then, a warm *medium soil*, it should be either a gravelly loam, or a gravelly mold, or a sandy loam, or a sandy mold, resting on a subsoil that contains rather a larger proportion of clay than the soil. By regulating the depth of his furrows, the Farmer may thus always make his soil of just such composition as may be desirable, in each field of his Farm, and in a way that costs nothing, while the land is constantly increasing in fertility.

Oak and chesnut, every where, grow on soils where subsoils contain a larger proportion of clay, producing trees tap-rooted, as we call them. On such soils, and subsoils, other trees approach this character, and lose it on mucky lands, where trees, naturally tap-rooted, cannot flourish, even when planted, or transplanted. The red beech, is always inclined to be tap-rooted, like the oak, and the chesnut; the white beech never. The sugar maple, the rock, or hard maple of the northern states, flourishes best in a warm soil, but will grow in mucky lands, yet with less luxuriance.—On the Ohio, and the warm mold of that valley, it is as tap-rooted as the white oak. To speak of localities, for illustration of these remarks, Dutchess, and Columbia counties, of the state of New-York, may be noticed. The native trees of these regions, even the oak and chesnut, 'open woods,' as they were called, and the soils, though various, generally dry and warm, resting on subsoils more clayey than the soils. Such is the case, also, with parts of Rensselaer and Washington counties, on the east side of the Hudson river, with tracts on the west side, yet to be noticed, and with vast regions, elsewhere. Wherever we find a warm soil, of either kind noticed above, it will generally be found underlaid by a subsoil much like the soil, but rather more ponderous, and compact, and having a somewhat larger proportion of clay. Deep ploughing, occasionally, has done much toward the fertility of these lands. Where this cannot be resorted to, the making of artificial soils is too expensive for the profits of farming.

I know not how it has happened, and am in no humor for philosophical speculations, or geological; but the facts I am about to state, will be *new* to many persons, and yet *not new!* It generally happens, in some way, that we find, at no great distance from extensive water-courses, and waters, as of rivers, and lakes, ranges of lands all of one character, lying nearly parallel with those waters, at unequal distances, and varying elevations. To begin with a smaller locality, let us notice a range of this medium soil, dry and warm, resting on a subsoil of almost a perfectly uniform character, rather more clayey than the soil, extending along the east side of the Hudson river, from the Highlands, through Dutchess, Columbia, Rensselaer, and part of Washington county. The surface is either ridgy, more or less continuous, or tossed into knolls, and hillocks, 2 to 5 or more miles distant from the river, variously elevated, but every where a different soil from those bordering it, on the east, or the west. It is a dry, warm, and highly productive soil, generally a gravelly loam; and is in many places, bordered by a stiff clay, by clayey loams, sand, or sandy loam, perfectly distinct soils, or lands, or, to speak geologically, distinct formations. For my purpose, I need not to be more particular, and yet it would be an interesting topic for the most minute examination. Even in the barren sands of Albany county, or the cold and wet sandy loam, or loamy sand, we cross, in going to Schenectady, one streak of good land, the similar range on the west side of the Hudson, which I have not time to trace. Similar ranges are found in most countries, in some on a smaller, and some on a larger scale, the soil and the subsoil so much alike, as to give to those ranges distinct and specific characteristics.

The most extensive range of land of this sort, probably, in the U. States, is on the N. side of the Ohio, between that river and the height of land toward the Lakes, forming the northern part of the Ohio valley. It is of vast extent, 10, 20, 30, 50 to 100 or 150 miles in width, stretching from the great *Table Land*, or *Plateau*, of the S. W. of the State of New-York, across the N. W. angle of Pennsylvania, increasing in width, but diminishing in altitude, through Ohio, Indiana and Illinois, to the Mississippi, or very nearly. This extent embraces, including its curvatures, at least 700 miles of this range of formation. Similar formations may be traced on the northern side of the Ohio, and indeed almost every where, along water courses and waters, occasionally interrupting the continuousness of the larger formations. They may be traced along the borders of several of the great Lakes of the west, and the smaller ones; along the Genesee, the St. Lawrence, the Black River, curiously conspicuous in Jefferson and St. Lawrence counties, of New-York. That fine peninsula, of Upper Canada, between the great Lakes Ontario, Erie and Huron, is almost all of this character, as is much of Michigan, the formation extending S. into Indiana, meeting the great range of the northern part of the Ohio valley. We find such, also, on the Mohawk, superior soil for Farming, compared with its far famed alluvial flats, because with good Husbandry, equally fertile, and adapted to a greater variety of products, and affording more sure crops.—But I need not dwell longer on localities, having pointed out enough to justify my starting positions, and to awaken public attention, all that I need aim at.

Sept. 18, 1831.

ART. CCCXLIX.—*Butter-milk—Whey.*

Butter-milk is that well known fluid which remains in the churn after the butter has been separated from the milk. When fresh it is simply, therefore, whey and curd; the latter undergoing a slight change in the process of churning, by which it would appear to be rendered more easy of digestion. Butter-milk is used extensively as an aliment in several parts of Europe. It possesses to a considerable extent, nutritive properties, and when taken with bread or other vegetable substances, forms certainly a very appropriate and wholesome article of food. It will be found, likewise, an excellent drink during summer, either by itself or diluted with water; its effects in allaying thirst, and refreshing the system, when suffering from the heat of the weather, are increased when it has become slightly acid—which it very quickly does when allowed to stand.

With many physicians butter-milk is a favorite diet in the earlier stages of consumption. Like every other bland fluid aliment it is certainly well adapted to those predisposed to this disease; it possesses, however, no specific powers over the malady; and those who should trust, for warding off the threatened attack, to the use of butter-milk, neglecting all other precautionary measures, will ,most assuredly, meet with disappointment.

Nearly the same remarks may be made in reference to *whey* in its separate condition, when it is combined with the curd in the form of butter-milk—it forms a bland, easily assimilated nourishment—increases the secretions, and has a tendency to produce a beneficial change in the state of the fluids of the body. It contains a considerable amount of sugar, which renders it sufficiently nutritious—it is less so, however, than the milk itself. As a drink, whey, in point of salubrity, is only inferior to water, which enters so largely into its composition. Like butter-milk, it is peculiarly well adapted to allaying the thirst of laborers in hot weather, and may, in nearly all parts of our country, be procured in great plenty. The ancients, we are informed, were in the habit of using it both as a drink and as food to a large amount. Would that the moderns could be induced to substitute it for the destructive liquids now in too common use.

Whey separated by the rennet, is preferable to that which separates spontaneously: the lightest for the stomach, and the most agreeable to the palate by its being slightly acidulous, is buttermilk or *two milk* whey, made by adding two parts of sweet milk to one of sour butter-milk. The milk of various animals yields a whey somewhat different in its properties. Thus cow's milk allows its cream to be separated in the greatest proportion with the whey; sheep's milk less; while goat's milk gives a whey in which scarcely any of the cream is contained. The latter, therefore, is better suited to those valetudinarians, in whom there is danger of exciting fever, or rousing into action inflammatory disease by a diet even moderately rich.—*Journal of Health.*

[For the New-York Farmer.]

ART. CCCL.—*Advertising.*

I am glad to see, Mr. Fleet, something like a *desirable reform*, in the mode of extending information by advertisements. Our New-York Newspapers, filled with all sorts of advertisements, on all sorts of subjects, spread over such monstrous sheets, occupied principally with commercial affairs, have become inconvenient mediums for certain other kinds of advertisements. It is high time, in relation to this subject, to adopt the plan of a proper 'division of labor,' about which so much has been said. The dealers in Farms, Lands, Stock, as Cattle, Horses, Sheep; in Wool, by purchase from the growers; in Mills, Factories, Water power, and sites for such works, want some medium, for advertising, less commercial, and more agricultural. The plan of your Advertiser, accompanying the Weekly New-York Farmer, is therefore exactly what many of us want, and I hope and believe, it will be alike acceptable to the Patrons of such a Paper, and profitable to you. Wishing you success, I would beg leave to suggest a small improvement. Give us in the Advertiser, some News, say a brief epitome, weekly, of Domestic and Foreign, or some principal items, such as your country Patrons would find time to read, and thus enable them to keep pace with the stream of time in events of a public character. This would give, to your very excellent paper, designed for Farmers, Gardeners, &c. an additional interest, likely, I should think, to prove beneficial to you. It would be a perfectly agreeable amusement, to supply this News, and many of your Patrons, in the Country, would be very much pleased with this small improvement, as well as Sir, your friend and subscriber,

Dec. 16, 1831. AGRICOLA.

REMARKS:— Four fifths of our subscribers take one or more news papers; consequently the space devoted to foreign and domestic news would be useless to them, and expensive to us. As our patronage increases, it is our intention to make improvements, but shall confine ourselves to agricultural and rural subjects.—This is in accordance with the increasing taste for periodical reading—requiring a division of labor and distinct sources of entertainment. Those who are fond of miscellaneous news, require in a week one or more entire mammoth papers to satisfy their appetites. We will, however, take the subject into consideration.—

ART. CCCLI.—*Cabinet of Nature.—Remarkable Trees.*

The selection of a few remarkable trees and plants will serve to impress the reader with a sense of the wisdom and power of God, as displayed in the vegetable kingdom. As rivers and brooks are very seldom found in deserts and sandy places, many of the trees growing there distil water; and, by that means, afford great comfort both to man and beast. Thus the *Tillandsia*, which is a parasitical plant, growing on the tops of the trees in the deserts of America, has its leaves turned at the base into the shape of a pitcher, with the extremity expanded; in these the rain is collected, and preserved for the use of men, beasts, and birds. The water-tree in Ceylon produces cylindrical bladders, covered with a lid; into these is secreted a most pure and refreshing water. There is a kind of cuckow-pint in New France, of which, if a person break a branch, it will afford him a pint of excellent water. How wise, how beneficial is the adaptation of plants to the inhabitants of those countries where they grow!

On the top of a rock, in one of the Canary Islands

says Glass, in his History, grows the *Fountain Tree*, called, in the language of the ancient inhabitants, *Garse*, (sacred or holy tree,) which for many years has been preserved sound, entire and fresh. Its leaves constantly distil such a quantity of water as is sufficient to furnish drink to every living creature in Hierro; nature having provided this remedy for the drought of the island. It is situated about a league and a half from the sea. Nobody knows of what species it is, only that it is called *Til*. It is distinct from other trees, and stands by itself. The circumference of its trunk is about twelve spans, the diameter four, and in height from the ground to the top of the highest branch forty spans: the circumference of all the branches together, is one hundred and twenty feet. The branches are thick and extended; the lowest commence an ell from the ground. Its fruit resembles the acorn, and tastes something like the kernel of a pine apple, but is softer and more aromatic. The leaves of this tree resemble those of the laurel, but are larger, wider, and more curved; they come forth in perpetual succession, so that the tree always remains green. On the north side of the trunk, are two large tanks, or cisterns, of rough stone, or rather one cistern divided, each half being twenty feet square, and sixteen spans in depth. One of these contains water for the drinking of the inhabitants; and the other that which they use for their cattle, washing, and such like purposes. Every morning, near this part of the island, a cloud or mist arises from the sea, which the south and easterly winds force against the fore-mentioned steep cliff, so that the cloud having no vent but by the gutter, gradually ascends it, and from thence advances slowly to the extremity of the valley, where it is stopped and checked by the front of the rock, which terminates the valley, and then rests upon the thick leaves and wide-spreading branches of the tree, from whence it distils in drops, during the remainder of the day, until it is at length exhausted, in the same manner that we see water drip from the leaves of trees after a heavy shower of rain. This tree yields most water in those years when the Levant or easterly winds have prevailed for a continuance, for by these winds only the clouds or mists are drawn hither from the sea. A person lives on the spot near where this tree grows, who is appointed by the council, to take care of *it*, and its water; and is allowed a house to live in, with a certain salary. He every day distributes to each family of the district, seven pots or vessels full of water, besides what he gives to the principal people in the island.—*Wood's Mosaic History.*

ART. CCCLII.—*Apathy on Important Subjects.* By the EDITOR.

Agriculture and Education are the most important of temporal concerns that can possibly receive the attention of the inhabitants of this flourishing and widely extended country. With the former all our concerns are intimately connected, and on it all are more or less dependent. All that adds sweetness to those enjoyments—all that raises us above the brute creation, flow from education, taking it in its widest signification. Though this be universally acknowledged, still information on these subjects is, in the great mass of the people, sought with less avidity than on any other of much less acknowledged importance! Facts incongruous!! State of things most lamentable!!!

These thoughts are called forth, in reading a notice of the Editor of the Western Tiller, a valuable agricultural periodical, to his subscribers, informing them that he had found by four or five years of laborious experience, that there are not farmers sufficient in all the far famed West, to support one weekly periodical devoted to agriculture and domestic economy!

About some four or five years ago, the Journal of Education was started at Boston. It has been ably conducted and beautifully executed. Now, under the name of Annals of Education, it is one of the handsomest periodical works published in this country. It makes a volume of 600 pages, at three dollars. Although it is the only one on the continent of America, yet it struggles for existence! Patriotism! where art thou? Slumbering until aroused by the commotions of passion? Long and sweet, then, be thy repose.—Taste! Taste! thy genial influence and generous support are courted.

Why will not those who do take an interest in these subjects make exertions adequate to their importance? Why will they not influence their neighbors to do *something* in the great and good cause?

ART. CCCXLIII.—*Hints on the Formation and Management of Agricultural Societies in the State of New-York.* By the EDITOR. [Continued from page 337.]

The great object of all associations of this kind is, to stimulate to exertion, and to enlighten the mind. Emulation accomplishes the former—the very plan of these societies being calculated to excite it. But to enlighten the understanding and diffuse a taste for those studies, on which advancement in rural arts depends, we discover very little provision in the organization of former agricultural societies. If this is true, it is evident that the fundamental principle has been overlooked;—for if taste is imparted and knowledge diffused on the practical sciences connected with the objects of improvement, it will readily be perceived that the foundation for permanent progress is laid. Without such a basis, all exertion proceeds from mere excitement. It is true, indeed, that patriotism warms the breast of many a noble spirit, who gives his time and money to raise the superstructure of his country's prosperity on the firmest of foundations—rural thrift. But even patriotism, though ever present in storms and commotions, cannot exert the potency that taste does, in the calm scenes of rural pursuits.

Having premised thus much, we would direct the attention of those who take an interest in this subject, to the articles generally given as premiums. These, in most instances, are medals and money—neither calculated to accomplish the objects in view. The wealthy regard the amount received as a consideration of no consequence—those less affluent, not as a reimbursment for incidental expenses. And where patriotism does not excite, honor alone stimulates—and this, like hope often deferred, ceases to enlist the feelings. Among other means to diffuse a taste for the rural sciences, we would suggest the awarding of premiums in books—not those of little value and in every common library, but of sterling merit and on those sciences that

are calculated to raise the standard of mental culture. Among these we would mention Sweet's or Loudon's Hortus Britannicus, Loudon's Encyclopedia of Agriculture, of Horticlture, and of Plants; popular works on zoology and other branches of natural history—such as those of Kirby and Spence, and Starke—also Barton's Flora, Wilson's, Bonaparte's, and Audubon's splendid and beautiful productions on ornithology—and numerous other valuable foreign and American publications. It will readily be perceived that any one of the above works would not only be a splendid ornament to any man's library, but an acquisition to a neighborhood. It would be the means, more or less extensively, of diffusing a taste for the science on which it treated. It is no objection to these works, that the premiums in all instances will not be sufficient to buy them. There are most valuable and beautiful works on the rural sciences, of every price; and in addition to this, in many instances, the successful competitors, will from their own purses, as is the practice with those of the New-York Horticultural Society, add a greater or less amount, and have the premiums awarded in a work of magnitude and value.

Let the above suggestions be acted on, and we shall open a wide field for the circulation of popular scientific works—not merely those that are given in premiums—but thousands of others in their train. They will be made known, and will be in demand as taste spreads its genial influence.

(To be continued.)

[For the New-York Farmer.]

ART. CCCL.—*Miscellaneous Observations Relative to the Prairies of Illinois.* By W. J.

In passing over the prairies of Illinois, huge masses of Carbonate of Lime, suddenly arrest the attention of the traveller; some of these masses weigh from fifteen to twenty tons, laying perfectly loose on the surface, and are entirely different in quality from any strata of rock to be found in the State; in fact, so destitute is the country of any kind of stone that a pebble is looked upon by many as a curiosity. The soil being alluvial and from two to three feet in depth, these masses of rock could not have been placed there at a very remote period, or they certainly would have sunk at least the depth of the soil: when compared with the stata, at Maysville, Kentucky, it evidently bears a strong resemblance; and from information derived from other sources I am under the impression, they were thrown from Kentucky by an eruption which took place about forty years ago.

One day resting on these rocks, I was astonished that a boundless region of grass uninhabited should contain an immence store of seed, kept in bondage by the fibrous roots that ramify so much as to form an impenetrable barrier against arboreous plants. The Populus tremula rests here in embryo, and all that is necessary to convert this vast wilderness into a dense forest is to encourage those who emigrate westwardly to leave one half their land after the first ploughing a few years at rest, and they will be amply rewarded by having an abundant supply of timber which springs up spontaneously.

Twenty-five feet below the surface after passing through a bed of yellow clay and gravel into sand you generally find delightful water, answering both for the useful purposes of washing as well as drink, but if you should unfortunately come in contact with blue clay there is no probability of good water, and this stratum appears to extend beyond the reach of man; and at the depth of 100 feet in this stratum, timber the size of a man's wrist have frequently been found.

Sixty miles north of Kaskaskia on Silver Creek, coa of an excellent quality may be obtained, and is the only mine I know of in the State; though possibly some discoveries may have been made since my excursion to that country.

With regard to the climate, the summers are long and warm; the winters cold,—an observation of which I took in 1820 (Reumer's Thermometer) the mercury sunk into the bulb. Consequently persons may be disappointed in calculating on enjoying a southern climate in Illinois; and no doubt the state of Michigan owing to the damp atmosphere of the Lakes, is not so disagreeable in winter as more southern latitudes.

The principle objections to this western region is the autumnal fevers, which all emigrants are liable to, and in too many instances unfortunately, proves fatal, either from neglect of the proper regimen or imprudence. I know of no country on this side the Atlantic perfectly free from this distressing malady; all the vallies between the Blue Ridge, particularly those watered by creeks or rivers, are infected with this destroyer of health; in ascending the Allegany Ridge, east, until you begin to descend the western waters which averages about 50 miles in breadth, less of this complaint is known than in any other region; which may include an area of about 50,000 square miles; but in this cold region little inducement is offered to the farmer; raising oats and pasturage being the only source to obtain a livelihood; however in emigrating to this section, the central part of which is less rugged than either the northern or southern, you may generally calculate on health. Leaving this cold region, the azure horizon in the west opens to view—where shall I roam? immediately enters the mind of the weary emigrant—beyond him he beholds nothing but cultivated plains, occasionally diversified with variegated foliage, all is enchanting, and the prospects brighten as he advances, by the flattering encouragement given by the inhabitants (many who no doubt have reaped the reward of their labors) he progresses gradually with anticipations which many never realize.

Economy, which is too often neglected by those who are unfortunate, in having an abundant supply of that necessary evil *money*, is the cause of more distress than the fever and ague; for I have seen men with large estates in a few years lose all they ever possessed, while a man without one cent in 5 years becomes possessed of 160 acres of land improved and well stocked. How is this accounted for?—the reason is obvious; the rich man instead of depending upon the farm for a support, depends upon his cash to support the farm,—which property instead of meeting a revenue, becomes an incumbrance. In the first place it must be stocked with horses to eat up all the grain that is possible for the farm to raise, instead of purchasing 2 yoke of cattle. An account must be opened at the merchants to accommodate the family in purchasing the necessary articles of clothing, instead of raising something to make

the merchant your debtor. The consequence is that very soon the Estate is in debt, and this causes trouble of mind, unnecessary fatigue of body in overcoming difficulties, relaxation of spirits, fear and trembling; the principle causes of the western ague.

Your's, &c.,

Erie, Pa. Dec. 6, 1831. W. J.

[For the New-York Farmer.]

ART. CCCLV.— *On sending a Delegate by the New-York Horticultural Society to the proposed Convention for Forming a State Agricultural Society, with Remarks on some Important Subjects Connected with our Rural Improvements.* By WILLIAM WILSON.

To the Members of the Horticultural Society.

GENTLEMEN— It must be gratifying to every lover of rural improvements, to perceive the increasing desire, which appears to exist generally throughout this State for advancing this interesting object. The united efforts of our agriculturists and horticulturists would undoubtedly perform a great deal towards the advancement of such a purpose. In a country like this, where all the most valuable products of the garden, particularly those of the fruit department, can and actually are in many instances brought to the highest state of perfection by the ordinary means of farm culture, it appears a matter of little consequence by what name such an association might be called. If we dare descend from the pedantic fashion of cloaking our plain English designation by Latinisms, no title would appear more appropriate for such an association than, The New-York State Husbandry Society.

The great desideratum in the formation of such a society, would be the organizing of such a system of operation as would extend throughout the State. And the drafting a set of rules for this purpose, could no doubt be most judicially performed by a meeting of delegates from its various sections.

From the statements of some writers in the agricultural periodical papers, and especially from the increasing number of Horticultural Societies in this State, it is evident there is an actual spirit of improvement awakened among its husbandmen. I use this term as including every man in any way whatever concerned in the culture of the earth.

A convention of delegates to meet at Albany next February, for the purpose of forming a State Agricultural Society, has been proposed by one writer.— Another writer proposes to form a "State Society of Agriculture and Horticulture." It is chiefly in this last point of view, that the subject seems to deserve the attention of this Society. As in case of the formation of such an Association, it woutd certainly be the duty of this Society to extend its most cordial co-operation.

It is in the view of such a society being formed, at no distant period, as well as from the firm conviction of the great benefit which it would produce, that induces me thus to recommend it to the consideration of the New-York Horticultural Society.

The benefits arising from the united exertions of Husbandry Societies, whether under the denomination of Agriculture or Horticulture, are too well known at the present day to render any apology for advocating their cause necessary.

The facilities which a State Society would afford for advancing the culture of the grape vine, the mulberry, and the silk worm, &c. have been alluded to. And the general neglect or imperfect culture of cider apples by the most of farmers, is of itself sufficient to point out the propriety of forming a State (I should say) Husbandry Society.

The benefits which would accrue, not only to the inhabitants of this State, but to those of the United States, by adopting such a culture and management of this fruit, as it is well proved from experience to be susceptable of, would certainly be incalculable.— There is no doubt but in this State, alone, without interfering materially with the farmers other products, a greater quantity of cider might be manufactured, than that of foreign wines now imported, and of a quality far superior to the generality of such trash.

The cold water advocate too, might be afforded an opportunity of exhilirating the tone of his stomach from a native cordial, instead of an imported poison. And the whole race of rum-suckers might get their thirst quenched with a less corroding article, than liquid fire.

But strange as it may appear, the worth of this invaluable fruit, is generally looked upon as a thing of comparative insignificance. And it will likely be as hard a task as the State Society will ever meet with, to correct the erroneous opinion so long riveted in the mind of the public, respecting the relative value of the apple and the grape.

The forming and proper management of one good cider apple orchard in each county, under the management of the State Society for a few years, would soon effect wonders. And the interchange of sentiments, and free discussion in the Husbandry periodicals, could not fail of being attended with the greatest benefits.

The support and circulation of these periodicals, among all those who have any taste for promoting our rural improvements, is the very life of our societies.

Even the little squabbles that sometimes break out among the green hands, (like myself,) in contributing their mite for such works, when they are kept within the bounds of moderation, as they generally are, frequently give an energetic tone to the minds of others, who watch the results of such discussions with an attention which might not otherwise be excited.

Another great advantage of these periodicals, is the information they promulgate of the different kinds and qualities of the products exhibited before the various Husbandry Societies; affording the most correct means to those at a distance of forming an estimate of the state of improvements among such associations. And which is of still more importance, they are thereby enabled to compare the state of the improvements of others with those of their own. But, above all, they are an invaluable source of improvement for the cultivator's own mind, by inducing an habitual course of reading and study. And I have no hesitation in stating my belief, that every man who contributes towards the support of these papers, does as much, or perhaps more, for the advancement of our rural improvements, than many who hold the plough, or wield the spade. The idea of any man being disqualified for being a valuable member of such associations, because he is not a practitioner, is totally erroneous.

But this mistaken notion, with many others, that stil

impede the successful progress of our improvements, will, I hope, soon be removed by the results of these free discussions, which are now engaging the pens of able writers from all quarters.

I have been the more particular in explaining my views fully, on the nature and value of our agricultural periodicals, lest in the public anxiety for arranging other means for advancing our improvements, these might not attract that attention which their worth deserves. I would even venture farther to give it as my opinion, that a greater degree of improvement could be effected in this State, in a few years, by their means alone, if well conducted, than could be effected by all the other means that could be adopted without them.

This opinion I do not express with any desire to detract from the great importance of the other ordinary means of promoting improvements, by the encouragement of premiums, &c.

My great object has been to point out a few important particulars, which in the event of this society's sending a delegate to the proposed Convention, its members might take into consideration the propriety of giving him such instructions as might be useful in those deliberations relating to such subjects.

WILLIAM WILSON.

Murray Hill Nursery, Dec. 26, 1831.

REMARKS:—Webster gives 'the business of a farmer' as the definition of husbandry. If a *name* as a substitute for the awkward ones agricultural and horticultural is wanted, we would suggest *Solicultural*, from *solum*, the *soil* or *ground*—including, in its signification, both field and garden culture.—*Ed.*

ART. CCCLVI.—*Agility of the Orang-outang.*

The two following paragraphs cannot fail of producing a contrariety of emotion.—*Ed.*

On the spot where this animal was killed, were five or six trees, which occasioned his hunters great trouble in procuring their prey; for, in consequence of the extreme agility and power of the animal in springing from branch to branch, and bounding from one tree to another, his pursuers could not fix their aim, until they had cut down all the trees but one. When thus limited in his range, the orang-outang was shot, but did not die till he had received five balls and the thrust of a spear. One of the first balls probably penetrated his lungs, as he, immediately after the infliction of the wound, slung himself by his feet from a branch, with his head downwards, and allowed the blood to flow from his mouth. On receiving a wound he always put his hand over the injured part, and distressed his pursuers by the human-like agony of his expression. When on the ground, after being exhausted by his many wounds, he lay as if dead, with his head resting on his folded arms. It was at this moment that an officer attempted to give the *coup de grace* by pushing a spear through his body, but he immediately jumped on his feet, wrested the weapon from his antagonist, and shivered it in pieces. This was his last wound, and last great exertion, yet he lived some time afterwards, and drank, it is stated, great quantities of water. Captain Cornfoot also observes, that the animal had probably travelled some distance from the place where he was killed, as his legs were covered with mud up to the knees.—*Brewster's Journal*, iv. 194.

A young specimen of this animal brought to England from Java, and previously described by Dr. Abel in his Account of the Embassy to China, was allowed to wander freely about the ship and became familiar with the sailors. "They often chased him about the rigging, and when pressed he eluded his pursuers by seizing a loose rope and swinging out of their reach. At other times he would patiently wait on the shrouds, or at the mast head, till his pursuers almost touched him, and then suddenly lower himself to the deck by any rope that was near him. When in a playful humor he would often swing within arm's-length of his pursuer, and having struck him with his hand, throw himself from him." The manners of this animal were gentle, and he romped with the boys of the ship. He would entice them to play by striking them with his hand as they passed, and then bounding from them. But when excited to violent rage, he displayed his teeth, and attempted to bite those who were near him. "If repeatedly refused an orange when he attempted to take it, he would shriek violently, and swing furiously about the ropes; then return and endeavor to obtain it, and if still refused he would roll for some time like an angry child upon the deck, uttering the most piercing screams; and then suddenly starting up, rush furiously over the side of the ship and disappear. On first witnessing this act it was thought he had thrown himself into the sea; but on a search being made he was found concealed under the chains."

ART. CCCLVII.—*Miscellaneous.*

Sympathy of the Pear Tree.—The best Perry in England was made some years ago at Worchester, from the fruit called the "Zeighton Squash."

The trees were all grafted from one tree; when the original stock decayed, all the grafts dwindled and died. Is this apparent sympathy peculiar to pear trees, or common to other fruit trees?—*Southern Agriculturist.*

Large Fruit.—We have been kindly presented by Gov. Bond, of Kaskaskia, with a fine large *Romanite* apple, measuring upwards of fourteen inches in circumference, and weighing fifteen and one half ounces.

By Gersham Flagg, Esq. with half a dozen of the same kind, of a less ruddy complexion, measuring from twelve to fourteen inches, and weighing from twelve to fifteen ounces, each.

By J. W. Collet, with some beautiful *Belle-flower* apples, measuring from ten to fourteen inches, and weighing from ten to thirteen ounces each. Also with some *Quinces*, measuring from ten to twelve inches—not weighed—Also a basket of grey butter *Pears*, of good size, though not *very* large.—*Illinois Plough-boy.*

Large Lemon.—Mrs. John D. Robinson, of this village, has sent us a noble lemon, the product of a tree grown under her own culture. The longest way [longitudinal circumference] it measures 13¼ inches, and weighs *fourteen* ounces.—*Poughkeepsie Journal.*

Flour.—We have ascertained that there has been manufactured in Rochester, in a year previous to the 1st inst. 242,000 barrels of flour, and that the millers have paid out for wheat during this period $1,160,000. This wheat has been purchased principally in this state—but a considerable quantity has also been bought in Ohio, which is becoming an important wheat market.